TITLE:

'A SUSTAINABILITY REVIEW OF THE NSW NATIVE VEGETATION CONSERVATION ACT 1997 AND ITS IMPLEMENTATION'

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Statement by Candidate

This thesis is my own work and all sources used have been acknowledged.

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Abstract

This thesis reviews the NSW Native Vegetation Conservation Act 1997 and its contribution to Ecologically Sustainable Development (ESD). The review uses strategic impact assessment techniques to gather information to conduct the review. It also derives some mitigation measures that could improve the management of native vegetation on private land.

The NSW Native Vegetation Conservation Act 1997 was implemented to control the clearing of native vegetation on private lands that had been a feature since European settlement. One of the Act's objectives was that it should adhere to the principles of ESD.

The main conclusions of the analysis are that the Act does contribute to ESD, but could achieve much more by careful modification of its provisions. The principal problems lie in the area of equity of impact and stakeholder participation. In terms of equity, the Act puts in place measures that are designed to ensure that the native vegetation of NSW is better conserved and managed, in order to leave a better level of vegetation for current and future generations. The existing landholders, many of whom are farmers, are expected to bear most of the negative impacts, while the majority of the positive impacts will be experienced by the wider community, both now and in the future.

The public participation processes that have been put in place are limited in their effectiveness. Many regional stakeholders feel that the processes are actually controlled at the central bureaucratic level.

The thesis proposes several mitigation measures to address these problems. Funding arrangements need to reflect the costs to rural landholders of providing native vegetation conservation services. Research is needed into new economic uses of native vegetation on private land. The current exemptions and exclusions from the Act need to be tightened to protect the ecological integrity of the outcomes. Community involvement needs to be strengthened through improved information delivery and more inclusive participation in decision-making.

CHAPTER 1

INTRODUCTION

In 1997, the NSW Parliament passed the Native Vegetation Conservation Act (the Act) into legislation. The intention of the Government in introducing this legislation was to control the damage being caused to native vegetation on private rural lands in NSW. This damage has been largely attributed to the clearing and modification often associated with agricultural production. Despite fairly broad support for this goal, the Act and its implementation have been criticised by the principal landholders, farmers, as being too restrictive and costly for them. Conversely, conservation groups are also concerned that the Act does not adequately control clearing.

Native vegetation management has been attracting increasing attention in Australia for some decades, culminating in specific legislation to promote its conservation and management in NSW, South Australia, Western Australia and Victoria. Clearing and modification of native vegetation has had a profound effect on Australia. Clearing for agriculture, the introduction of grazing, and timber harvesting have all substantially modified or led to the extinction of many native plant and animal communities (Mackey et al 1998: 38-43). In some areas, this effect has been particularly dramatic in certain plant communities, depending on the intensity of land use. For instance, the lower lying slopes and river flats in the southwestern slopes of NSW have been heavily cleared (85%).

The Australia and New Zealand Environment and Conservation Council, in its draft 'National Framework for the Management and Monitoring of Australia's Native Vegetation' (ANZECC 1999: 4, 13), has identified native vegetation management as requiring high priority attention. ANZECC envisions a direct link between conservation of biodiversity and sustainable agriculture, and vegetation conservation as an investment in natural capital, the basis of material wealth. It sees the use of native vegetation as forming an increasingly important role in the future of Australian agriculture and other land use.

One objective of the NSW Native Vegetation Conservation Act was to implement ecologically sustainable development (ESD) in native vegetation management in NSW. ESD has come to occupy a significant position at the international, national, regional and local level. At its core is the need to balance and integrate the economic, environmental and social needs of a wide and diverse community. With such an all-encompassing objective, it is not surprising that there is disagreement among community members about its implementation and the measures that Governments (as community leaders) use in its implementation.

If ESD is to be a reality, a method of assessing new and existing policies, programs, plans and projects for their contribution to ESD is needed. Otherwise, actions may be taken that achieve some worthy objective, but are unsustainable. For instance, one way to combat the current declining level of economic viability of much of Australian agriculture might be to clear additional land. Greater productivity from limited arable land could then be achieved by converting the 'unproductive' land (containing native vegetation) to other more profitable uses.

However, it is now evident that such actions have the capacity to contribute to increased salinity, greenhouse gas production and species loss, all unsustainable in the long term.

In particular, at the policy and legislation level, actions are usually far-reaching and difficult to implement. A method of assessment is needed that is accessible to society's leaders and the broader community, and which will provide guidance for future policy development.

The goal of this review is to develop a sustainability assessment model which can be applied to policies and legislation (Chapter 2). The model is then applied to the NSW Native Vegetation Conservation Act 1997, with an impact assessment (Chapter 3) and then a sustainability assessment and development of recommended future changes (Chapter 4). Concluding remarks are shown in Chapter 5.

CHAPTER 2

TESTING FOR SUSTAINABILITY

This chapter develops a model to be used in testing for sustainability at the policy level. Before moving to that task, it is important to first define ESD and develop some sustainability principles for use in assessment.

2.1 ECOLOGICAL SUSTAINABLE DEVELOPMENT

In Part 3 of the NSW Native Vegetation Conservation Act 1997, one stated object is 'to promote the significance of native vegetation, in accordance with the principles of ecologically sustainable development' (AUSTLII 2000). In support of this object, the Act lists four ESD principles (intergenerational equity, ecological integrity, precautionary principle and improved valuation of environmental resources), but contains little information about them.

As the core intent of this essay is to assess the Act and its implementation against ESD, it is important to take some time to explore this concept and develop a full set of ESD principles, against which actions can be assessed. This section will begin with a short history of the development of the ESD concept, followed by a discussion of an appropriate definition, and will then develop a set of comprehensive ESD principles for use in Section 2.2.

Development of the ESD Concept

For many people, it was the report 'Our Common Future' (or Brundtland Report) published in 1987 that started the use of sustainable development as a concept. However, the ideas contained in the sustainability concept had been present for many years and in many different societies, although the term ESD was developed only in the last 30 years.

Desta Mebratu (1998: 496, 497) has identified three historical periods of the sustainability debate:

- pre 1972
- 1972 to 1987 - from the Stockholm Conference on Human Environment to the 1987 World Commission on Environment and Development (WCED) Report
- post 1987 - after WCED and incorporating the Rio Earth Summit in 1992 and Earth Summit 2 in 1997.

Pre 1972

From earliest times, religious beliefs and traditions in many cultures emphasised the need for humans to see the natural environment as part of their social structure, providing food, shelter and life-sustaining values. Those same beliefs invariably taught people to cherish nature, although many religions were confused in their treatment of nature. This led to many religious writings being used to justify destructive use of the Earth's resources, particularly by western Christian societies (Mebratu 1998: 497).

Indigenous traditions and beliefs all have a core element of living in harmony with nature (Mebratu 1998: 498). An important lesson to be drawn from these traditions is the 'holistic vision' contained in them and the importance of communication with nature. However, the demands of the modern world mean that we cannot rely on those beliefs and traditions if that harmony is to be achieved.

With the development of economics, came the 'Theory of Limits', developed by Malthus in the late 18th century. It had become evident that resources were not unlimited, exemplified by the 'evil effects of the industrial revolution' (Mebratu 1998:498). Unemployment, disease and poverty, all prevalent at the time, provided some evidence for Malthus' observation that the human population would grow at a faster rate than the capacity of the Earth's resources to provide its needs.

Given that the Earth's population has vastly expanded since the late 18th century, Malthus' theory has not proven accurate. This has been largely due to the unanticipated ability of technological development to extend the capacity of natural resources to provide society's needs. Nevertheless, the Malthusian theory of eventual environmental limits was the precursor to the concept of sustainable development (Mebratu 1998: 499).

<u>1972 to 1987 – Stockholm to WCED</u>

In 1972, the Stockholm Conference on Human Environment recognised the importance of environmental management and the use of environment assessment

as a management tool (Mebratu 1998: 500). This was an important step forward towards sustainable development.

At the same time, the 'Club of Rome', a group of scientists and other observers, concluded that industrial society would exceed most of the Earth's ecological limits in a matter of decades (Mebratu 1998: 501), unless the direction of economic growth was changed.

In 1980, the International Union for the Conservation of Nature (IUCN) formulated a World Conservation Strategy, which was a major attempt to integrate environment and development concerns into a concept of conservation (Mebratu 1998:501). Sustainable development, while not contained in the text, was used in one of the report's subtitles and set the scene for linking the concept of time into the environment and development debate.

In 1987, the World Commission on Environment and Development produced the report 'Our Common Future', also known as the Brundtland Report after the Commission's Chairperson. That report defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs', firmly placing sustainable development in a context of economic growth, poverty reduction and providing for future generations. This definition was considered politically acceptable, although many believed that this was because it could be interpreted in many ways (Mebratu 1998:502).

This 1987 definition set the agenda for subsequent debate, although it has also meant that a wide range of definitions and interpretations were in use across

the world (Mebratu 1998: 502). However, all such definitions and interpretations have a link to the core concept.

Post 1987

Two major contributors to world thinking on sustainable development occurred in the 1990s. In 1992, the Earth Summit (Rio Conference) was held in Rio de Janeiro, and led to the preparation of a number of international documents, like Agenda 21, Conventions on Desertification, Climate Change and Biodiversity. The Rio Declaration contained 27 statements of principle on global sustainable development.

Several observers have noted that the main contribution of Rio was in the preparatory meetings and the involvement of community-based stakeholders (Mebratu 1998: 502, Diesendorf 1997: 69). This drove the message of sustainable development to the grassroots of many countries, although the final charter and agreements lacked rigour or hard action.

In 1997, Earth Summit II was held in New York. It concluded that Agenda 21, the main engine arising from Rio, did not need variation, but that it needed more vigorous application (Osborn and Bigg 1998: 3).

The definition of ESD has been developed over many years, but it has been possible to interpret it in many ways. The remainder of this section is therefore devoted to defining ESD and establishing some clear principles for its implementation.

Defining ESD

As noted above, sustainable development or ESD has now been widely accepted and is firmly placed on the global political agenda. However, this means that it has been interpreted in many ways and its implementation has been largely subject to the different problems faced by different countries. The highly industrialised wealthy countries of Europe and the US have very different priorities from the poorly industrialised and overpopulated countries of Asia and Africa.

The Brundtland definition remains the most often quoted definition. However, it has been criticised as confusing human needs with economic wants (Diesendorf 1997: 68, 69). The concept of economic growth is taken to mean the expansion of goods and services produced, rather than an improvement in the quality of production methods or products. It has been argued that ESD should be more focussed on improving the methods of delivering needs and wants, and not on simply increasing the overall level of production. In particular, providing present day needs without compromising the ability of future generations to enjoy those same needs is a core value of ESD.

In 1990, the Australian Commonwealth Government adopted an ESD goal of 'development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends' (Commonwealth of Australia 1992: 8). It also put forward several objectives and guiding principles.

These objectives called for enhancement of individual and community well-being through economic development, equity within and between generations, and

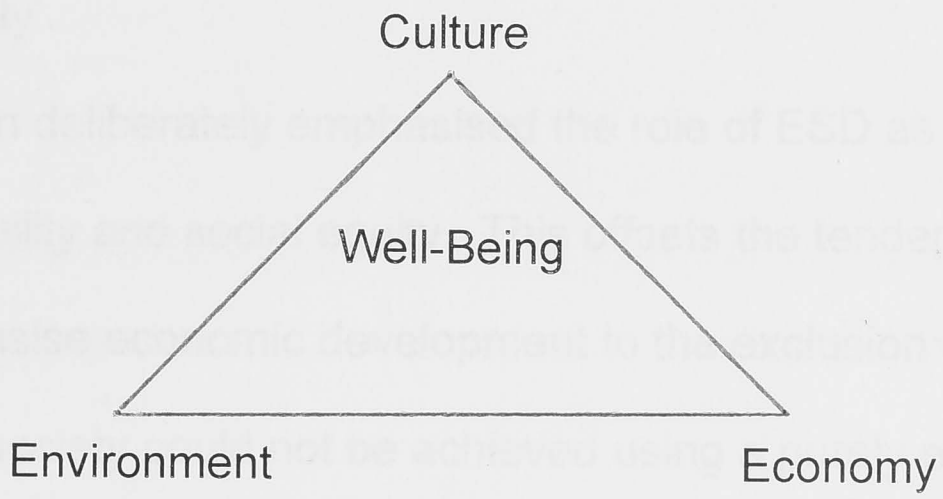
protection of biological diversity and ecological systems. A clear trend was the tendency to consider sustainability in a context of social and economic development, while protecting the Earth's natural resources.

More recently, Moomaw (1996: 475-477) further enhanced the debate in his discussion about sustainability in the urban context. He noted that urban societies could only be sustainable if they did not deplete the natural resource base on which they were dependent. However, he also noted that maintenance of a level of well-being for individuals is the real goal of sustainable development. Individuals and the natural environment are linked through society and the cultures and economies they develop in a natural environment setting.

Moomaw therefore proposes a sustainability triangle for well-being, with environment, economy and culture (social) at its three corners (see Fig 2.1 – page 13). This illustrates the trade-offs between the various aspects of sustainability, at least as seen from the human context. Well-being can only occur when the three components are in balance, and not when only one of the three aspects is satisfied.

This sustainability triangle also illustrates the inter-linked and integrated nature of these three aspects of human society and well-being. A society that focuses on economic growth and ignores the ecological and social/cultural dimension is unlikely to be sustainable and contribute to well-being. Equally, a pure focus on ecology will not be sustainable either, unless the economic and social/cultural issues are in balance.

Fig. 2.1 - Sustainability Triangle (Source: Moomaw 1996: 476)



As a final point, equity considerations abound in the sustainability debate. Many societies believe that the first priority has to be to deal with current poverty, within and between countries. The right of future generations to enjoy natural resources and ecological integrity is well recognised, although hard to balance against current pressing needs in many countries. The ethical issues related to non-human species and their rights are difficult to deal with.

Therefore, the equity issues, both current and in the future, must be considered in sustainability debates. Economic analysis in particular usually ignores equity, being primarily concerned with overall efficiency. Cost benefit analysis, often used by Governments when reviewing projects and policies, makes it clear that the distributional effects of actions are not as important as increasing overall society welfare (Perkins 1994: 51).

This leads to the conclusion that an effective definition of ESD needs to emphasise this balance between environmental, economic and social/cultural

factors. Diesendorf (1997: 71) met this challenge by defining ESD as 'types of economic and social development which sustain the natural environment and promote social equity'.

This definition deliberately emphasised the role of ESD as a route to ecological sustainability and social equity. This offsets the tendency of previous definitions to emphasise economic development to the exclusion of other factors. A truly sustainable society could not be achieved using a purely economic approach.

In summary, current views on sustainability emphasise the need to balance three components of human development. Economic development is seen as vital for the continued maintenance and improvement of well-being, particularly of those people who live in poorer countries. Maintenance of cultural and social values is seen as important if societies are to remain sustainable in the long run. Finally, these two development needs have to be achieved while maintaining the integrity of the natural environment in which human societies live.

It has become well recognised that it is important to develop some principles for sustainability. For the purposes of this essay, the principles will form the key measuring sticks for assessing the effectives of the Native Vegetation Conservation Act.

Table 2.1 – Sustainability Principles

National Strategy for ESD (Commonwealth of Australia 1992:8-9)	**Principles of ecological sustainability** (Diesendorf 1997:72-81)
Decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations	Conservation of biodiversity and ecological integrity – genetic, species and ecosystem diversity and the capacity of ecosystems to maintain ecological functions
Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation	Conservation of cultural diversity – recognises that dominant societies can destroy or substantially modify less dominant languages, beliefs, economic and political systems, social structures
The global dimension of environmental impacts of actions and policies should be recognised and considered	Improvement of individual and community well-being – this calls for enhancement of well-being; well-being is seen as more than economic – it also means social, political and ecological well-being
The need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised	Intergenerational equity – regarded as possibly the most important principle
The need to maintain and enhance international competitiveness in an environmentally-sound manner should be recognised	Intragenerational (social) equity – follows intergenerational equity as there is no need to single out future generations for preferential treatment

..Continued over page

Table 2.1 Continued – Sustainability Principles

National Strategy for ESD (Commonwealth of Australia 1992:8,9)	**Principles of ecological sustainability** (Diesendorf 1997: 72-81)
Cost-effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentive mechanisms	Precautionary principle – recognition of uncertainty and ignorance, and that lack of precise knowledge should not prevent action being taken; it also shifts the onus of proof from opponents to proponents
Decision and actions should provide for broad community involvement on issues which affect them	Community participation in decision-making – this recognises the need to involve local communities in decisions if success is to be achieved.

Principles of ESD

A number of commentators have developed principles for ESD, in order to clarify the concept. Two important contributions to the development of ESD principles in the Australian context are shown in the Table 2.1 (p.p. 15-16).

In 1992, the Commonwealth Government of Australia published its National Strategy (Commonwealth of Australia 1992), and established some guiding principles for ESD. In 1997, Mark Diesendorf used the Commonwealth principles, the earlier Brundtland report and other literature to develop a set of principles (Diesendorf 1997: 72-81).

Diesendorf's principles were deliberately framed to emphasise the need for ecological and social sustainability when discussing ESD (Diesendorf 1997: 71).

He saw ecological and cultural diversity (including economic systems) as core principles. In particular, he was concerned to ensure that existing economic systems were not modified by dominant societies, in the drive for economic advancement.

Diesendorf also explicitly emphasised the need for equity for both current and future generations. This approach was supported by Hamilton (1996: 16-17), who stated that intergenerational equity was the central issue in the environmental debate which has preoccupied world Governments in recent years. This debate has drawn stark lines between an economic approach, which advocates that a healthy economy was the key legacy society should leave, and the environmental approach, which advocates that the appropriate legacy is full biodiversity.

The Commonwealth's ESD principles also highlighted the need for integrated planning. This was supported by Carew-Reid et al (1994: 10) in their Strategies for National Sustainable Development. They noted that a key feature for success was to 'integrate any strategy into the decision-making systems of society' and to 'build the capacity to undertake a strategy at the earliest stage'.

To a large extent, both sets of principles were very similar, although each emphasises different aspects. For the purposes of this essay, the following sustainability principles will be used, using Diesendorf's principles as its base. The order shown implies no particular priority. It should also be noted that there is some unavoidable overlap between the principles.

Conservation of biodiversity and ecological integrity

This principle refers to the maintenance of genetic, species and ecosystem diversity and the ecological integrity, or capacity to maintain normal ecological functions (Diesendorf 1997: 72). The two conditions are seen as completely interdependent. There are also links to cultural values, through nourishment, religion, recreation and art.

Of all the principles which will be used, this is the one which most refers to non-human systems, or the broader ecology. In this respect, the main debate is therefore about how much biodiversity and how many ecosystems need to be conserved (Diesendorf 1997: 73).

Conservation of cultural diversity

Cultural diversity extends to the diversity of languages, social structure, economic and political systems and spiritual beliefs (Diesendorf 1997: 74). The influence of dominant societies has led to enormous loss of cultural diversity, with a consequent loss of flexibility in dealing with the pressures for sustainability.

A key issue here is the need to separate the impact of policies from the inevitable change that all societies experience for a wide variety of reasons. Social/cultural change can be a result of many different pressures, many of which are desirable. For example, improved education can lead to very beneficial changes in population growth (reduced), employment opportunities (more technical training) and gender equity.

Improvement of individual and community well-being

This principle is concerned with the advancement of human society, through social, economic, ecological and political development (Diesendorf 1997: 74-75). Well-being can be said to include such ecological factors as clean air and water, productive soils, high biodiversity and ecological integrity. Socially desirable factors can include low crime incidence, low prison population, no death penalty, high literacy, education availability, low levels of homeless and low morbidity rates. Economic factors include high employment, low inflation, income equity and economic sustainability.

Intergenerational equity

This is seen by some as the most important principle. Sustainability into the future is the core of ESD, and equitable treatment of the needs of future generations is vital (Diesendorf 1997: 76, Hamilton 1996: 16-17). The principal problem is how to judge the needs of future generations, since we cannot know what their needs and views will be. In many ways the first 3 principles discussed above embody those features that should be passed on in good condition: biodiversity, cultural diversity and society well-being.

Intragenerational equity

This principle follows directly from intergenerational equity. Current generations are also entitled to enjoy an equitable distribution of biodiversity,

cultural diversity and well-being (Diesendorf 1997: 76-77). This extends to equitable treatment of nations, societies and individuals.

Precautionary principle

The precautionary principle is about protecting against the influence of uncertainty and ignorance, acceptance that these are not reasons to do nothing, shifting the burden of proof to proponents, not opponents, and taking anticipatory and preventive action (Diesendorf 1997: 77). The concepts of risk (enough data to estimate probability of possible outcomes), uncertainty (direction of outcomes known but can't be accurately quantified) and ignorance (where effects are not understood, but believed to exist) are important here.

Community participation in decision-making

Community participation is considered important for two reasons (Diesendorf 1977: 81). The consequent access to a much broader range of information sources than that provided by project proponents or Government agencies, will enable decision-makers to make more informed decisions.

It also ensures that broader community values are incorporated in actions, often a casualty of top-down approaches to policy development.

Integration into society's decision-making processes

Strategies for sustainability should be integrated into decision-making systems, not just added on as an extra hurdle (Carew-Reid et al 1994: 10-11).

This is a key principle applicable to Government processes, where many varied policy decisions have to be made, which can affect a wide range of ares of society and the environment.

2.2 Impact Assessment and Testing for Sustainability

Sustainability needs community acceptance to become a reality. If it is to be achieved, there must also be a process to enable decision-makers to assess the sustainability of present and future policies, programs, plans and projects. In this respect, Government policies and legislation should be reviewed as they have a key role in guiding community behaviour and action.

The question then is how can such legislation be assessed in terms of sustainability? This chapter suggests an assessment model that uses strategic environmental impact assessment techniques and the sustainability principles developed earlier.

Environmental Impact Assessment

Environmental Impact Assessment (EIA) developed in the 1950s and 1960s, out of a growing concern about the impact of human development on the environment. During the 1970s EIA became an important part of Government planning processes, with the introduction of legislation in many countries requiring EIA of projects prior to their approval. Part of the reason for this trend was the failure of existing economic techniques (cost-benefit analysis) to consider the long

term ecological and social consequences of projects. The other driving factor for EIA development was the growing importance of environment and conservation groups in many countries (Harvey 1998: 4).

Common elements of EIA processes follow a well-established path with eight broad stages (Harvey 1998: 19) as shown in Table 2.2 (below). Steps 3 to 5 of the EIA process are the basic information gathering, evaluation and impact prediction phases of EIA.

Table 2.2 – EIA Processes (Source: Harvey 1998: 19)

1. Screening to determine whether EIA is needed and scoping to allow focus on the significant issues
2. Development of alternative proposals and description of proposed action
3. Description of the baseline conditions
4. Identification and prediction of key impacts
5. Evaluation of the significance of impacts and development of mitigation measures
6. Presentation, public consultation and participation
7. Review and decision-making
8. Post-decision monitoring and audit

By the 1990s, EIA had clearly expanded from the natural environment to encompass other non-monetary aspects, such as social, cultural and risk impacts

(Ortolano and Shepherd 1995: 4). This expansion heralded the inclusion of a wider range of impact assessment processes in EIA, such as ecological impact assessment, social impact assessment, risk assessment and cumulative impact assessment. In practice, however, EIA has tended to focus on ecological impacts, mostly because this has been the extent of legislative requirement.

Hundloe et al (1990: 58-59) support this widening of EIA processes, arguing that cost benefit analysis (CBA) should be used in all EIA processes, particularly in evaluating the impact of a particular action. CBA is an economic analysis tool which predates EIA. It seeks to attach a monetary value to all impacts that CBA attracts its most trenchant criticism.

Perkins (1994: 9) argued that the economic welfare effects of any action need to be assessed, so that beneficial choices can be made by or on behalf of a community. However, she also notes that in the area of environmental externalities (costs imposed on others), the role of other professionals (such as ecologists and social analysts) is heightened to ensure that CBA does not under or over-value those effects (Perkins 1994: 262). Monetary measures are not well suited to assessing ecological and social/cultural impacts.

Impact Assessment Techniques

As noted in Section 2.1, ESD is largely about balancing social/cultural, economic and ecological values to achieve some desirable level of well-being. In testing for ESD, processes that can assess these diverse aspects are needed. These already exist in EIA.

The role of the various impact assessment techniques is therefore important to an effective, integrated assessment of any action or project. The key assessment and analysis processes are ecological and social impact analysis, cost benefit (economic) analysis, risk analysis and stakeholder analysis.

Ecological impact assessment (EIA)

This measures the effect of actions on natural systems. This extends to biodiversity and ecosystem damage, loss or enhancement and pollution effects.

Social impact assessment (SIA)

This measures the effect of actions on the social and cultural systems in place amongst the human societies involved. It extends to language, art, social structure, political and economic systems, and employment effects. This will usually involve a stakeholder analysis (see below) to determine the extent of affected communities and their concerns.

Cost benefit or economic analysis (CBA)

This measures the economic impact of actions. All impacts are assigned a monetary value and a balance sheet of effects compiled. This differs from financial analysis, which only analyses the financial impact on a project or policy proponent. Economic analysis includes the impact of any externalities, of which pollution and ecological damage are excellent examples.

In addition, two other assessment techniques should be used to complement the above three.

Stakeholder Analysis

Stakeholder analysis identifies the major community groups and individuals affected by an action, and then seeks to identify their needs, wants, issues and concerns. It is a vital part of impact assessment, especially SIA.

ESD largely consists of debates about well-being and equity. Many impacts are actually judged by the perception of the affected people. Even non-human aspects, such as the health of the natural environment, are dependent on humans to measure and assess them.

Risk assessment (RA)

This complements the above processes by identifying the major risks associated with actions and assessing their likely impact. Risk can be analysed as a separate analysis or as part of EIA, SIA and CBA.

Environmental risk assessment addresses three questions (Modak and Biswas 1999: 220).

1. What can go wrong?
2. What is the range of magnitude? – this is a function of severity, the probability of their occurrence and the frequency.
3. What can be done to manage and reduce the unacceptable risk and damage?

Application of Assessment Techniques

In the past, such assessment techniques have been used to assess projects. It is in fact often a legislative requirement to assess the ecological impacts of projects prior to Government approval. At the project level, this requirement typically requires a detailed level of knowledge and is often very time consuming.

In the case of Government policies and legislation, a strategic review is required that focuses on the key impacts is required. At the strategic level, quantifying the impacts may well be impossible, given the very wide-ranging nature of the review, and the normally large section of society affected by policy decisions.

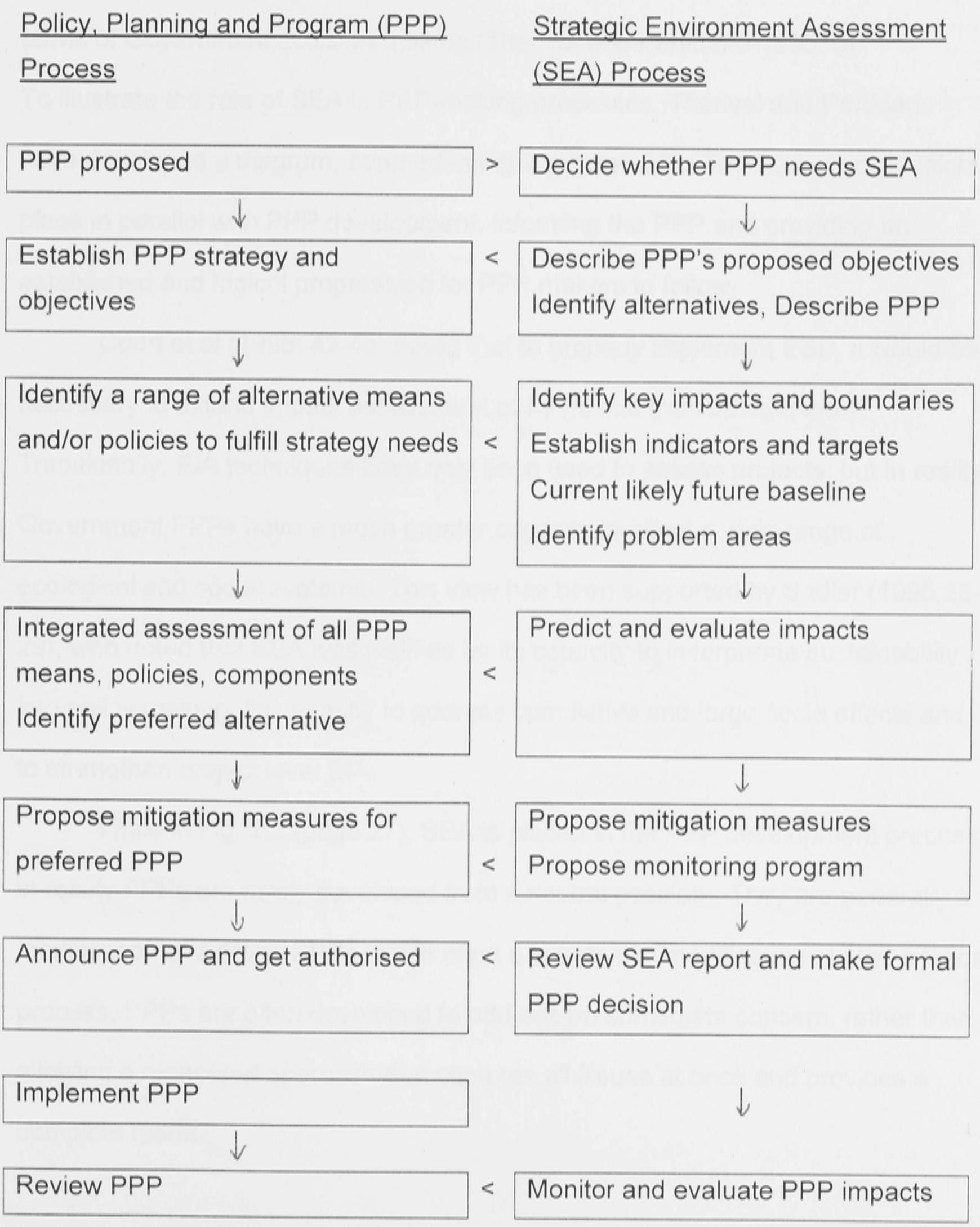
A specific form of impact assessment, Strategic Environment Assessment, has been developed to meet this need.

Strategic Environment Assessment

Strategic environment assessment (SEA) is defined as:

'the formalised, systematic and comprehensive process of evaluating the environmental effects of a policy, plans or program and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making' (Therivel and Partidario 1996: 4).

Fig 2.2: Strategic Environment Assessment and Policy Development (adapted from Therivel and Partidario 1996: 6).



SEA therefore refers to environmental assessment at the strategic level. The use of the terms policies, plans and programs (PPPs) can also be seen as fairly interchangeable as the boundary between them is often very unclear, in terms of Government decision-making (Therivel and Partidario 1996: 5).
To illustrate the role of SEA in PPP-making processes, Therivel and Partidario have developed a diagram, adapted in Fig 2.2 (page 27). The SEA process takes place in parallel with PPP development, informing the PPP and providing an established and logical progression for PPP makers to follow.

Court et al (1996: 42-45) noted that to properly implement ESD, it would be necessary to extend impact assessment of PPPs into the strategic level. Traditionally, EIA techniques have only been used to assess projects, but in reality, Government PPPs have a much greater capacity to affect a wide range of ecological and social systems. This view has been supported by Sadler (1995:28-29), who noted that SEA was justified by its capacity to incorporate sustainability into policy-making, its capacity to address cumulative and large scale effects and to strengthen project level EIA.

While in Fig. 2.2 (page 27), SEA is placed in the PPP development process, in reality PPPs are rarely developed from a neutral position. They are generally a modification of existing PPPs, albeit often a substantial modification. In the political process, PPPs are often developed to address an immediate concern, rather than allowing a measured approach that captures all issues at once and provides a complete result.

Therefore, if ESD is to be implemented, PPPs must be able to be reviewed at any stage of their development or implementation and the results used to modify them. George (1999: 180) highlights the need to ensure that ESD principles are considered in the impact assessment process; otherwise impact assessment cannot be used effectively. In particular, he notes that the issue of equity between current communities and between generations has to be a core component of any investigation.

Using SEA to test Government Policies for ESD

There are clear links between ESD principles and impact assessment techniques, as shown in Table 2.3 (page 30). Ecological impact assessment can assess the biodiversity and ecological integrity aspects of a policy. Social impact analysis can assess the cultural diversity, public participation, well-being and equity issues. Cost benefit analysis can shed light on the well-being and equity issues. All forms of analysis can be used to assess the uncertainty embodied in the precautionary principle. Stakeholder analysis is a basic tool for use in all impact assessment.

Use of the impact assessment techniques therefore offers opportunities to reveal information relevant to assessing the sustainability contribution of a policy, plan or program. However, in common with many Government policies and legislation, the Native Vegetation Conservation Act 1997 has already been in place for two years. Therefore the SEA process described in Fig 2.2 (page 27) needs some modification to be useful.

Table 2.3 ESD principles and impact assessment links

ESD Principle (from Section 2.1)	**Assessment processes**
Conservation of biodiversity and ecological integrity	EIA Stakeholder analysis
Conservation of cultural diversity	SIA Stakeholder analysis
Improvement of individual and community well-being	SIA, CBA, EIA Stakeholder analysis
Inter- and intra-generational equity	EIA, SIA, CBA Stakeholder analysis
Precautionary principle	EIA, SIA, CBA Stakeholder analysis
Community participation in decision-making	SIA Stakeholder analysis
Integration into society's decision-making processes	Stakeholder analysis

Key: EIA – Ecological impact assessment SIA – Social impact assessment
CBA – Cost benefit analysis

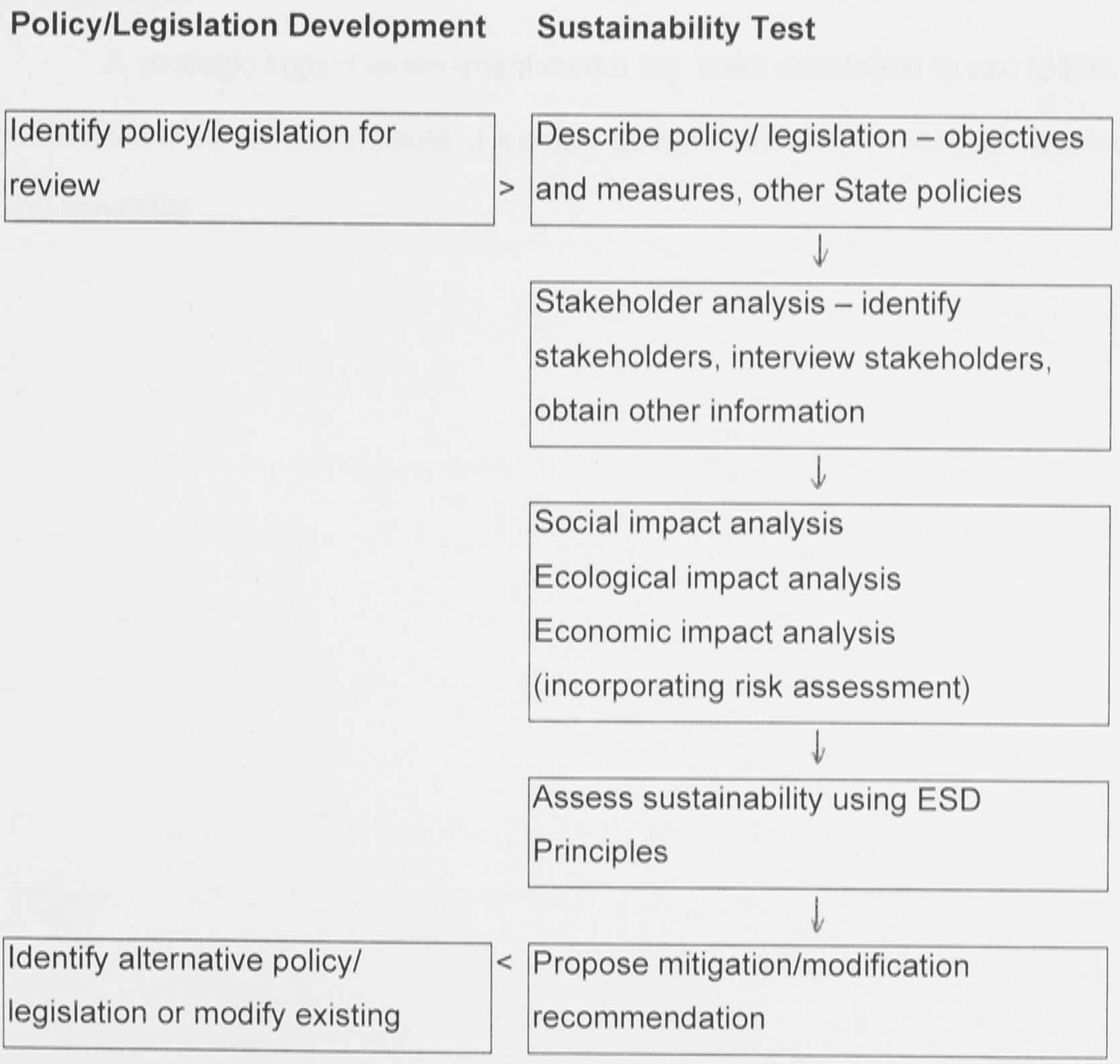
Fig 2.3 (page 31) illustrates a modified process, which will be used in Chapters 3 and 4 to review and test the Act for sustainability. Risk analysis will be conducted within the SIA, EIA and CBA processes, rather than as a separate analysis. Risk analysis tends to look at the ecological, social and economic risk involved in an action.

This process follows a logical path. It starts with the policy identification step, followed by a sustainability assessment process consisting of policy

description, stakeholder analysis, impact assessment and sustainability assessment. It ends with identification of mitigation measures that might be used to develop an alternative policy or modify the existing one.

The analysis is designed to be strategic in focus, and therefore identifies the conceptual impacts. Detailed quantification is not the purpose of this analysis.

Figure 2.3: Strategic Impact Assessment



Chapter Summary

ESD has been defined in many ways over the years of its development as a concept. At its core, ESD requires that society balance its economic, social/cultural and ecological aspirations, in a way that guarantees the equitable distribution of benefits within and across generations. For the purposes of reviewing the ESD impact of a policy or program, a set of guiding principles has been compiled that will allow the policy's impacts to be deconstructed into its key components.

A strategic impact assessment model has been developed to use to first determine the potential impacts of a policy decision and then to assess it against sustainability.

CHAPTER 3

IMPACT ASSESSMENT OF THE NSW NATIVE VEGETATION CONSERVATION ACT 1997

3.1 DESCRIPTION OF ACT AND ITS OBJECTIVES

Introduction

The Native Vegetation Conservation Act 1997 (the Act) came into effect on 1 January 1998. This description of the Act is based on material prepared by the NSW Department of Land and Water Conservation (DLWC 1998a, 1998b, 1998c, 1999a, 1999b) and the Act, available from the Australasian Legal Information Institute Website (AUSTLII 1999).

The Act was introduced to implement the NSW Government's native vegetation reform program. This reform program commenced in 1995 with the introduction of State Environmental Planning Policy Number 46 (SEPP 46), which prevented inappropriate land clearing.

Following SEPP 46, the NSW Government created the NSW Vegetation Forum. This included representatives of key stakeholders and conducted meetings throughout NSW between 1995 and August 1996. The forum received 246 submissions and made its recommendations to the Minister for Land and Water Conservation in August 1996.

The Forum's key recommendations were:

- that the goal should be to increase and improve native vegetation cover in NSW,
- that a new Act be developed to adopt a whole-of-State approach,
- that a tiered approach be adopted using regional management plans, and
- that an incentive package be developed.

This led to the development of a Government White Paper, which was released for public discussion in July 1997. After debate, the Act was passed by Parliament in 1997 and came into force on 1 January 1998.

Purpose of the Act

The objects of the Act are contained in Clause 3, and reproduced below (AUSTLII 1999).

- To provide for the conservation and management of native vegetation on a regional basis,
- To encourage and promote native vegetation management in the social, economic and environmental interests of the State,
- To protect native vegetation of high conservation value,
- To improve the condition of existing native vegetation
- To encourage the revegetation of land, and the rehabilitation of land, with appropriate native vegetation
- To prevent the inappropriate clearing of vegetation

- To promote the significance of native vegetation, in accordance with the principles of ecologically sustainable development.

The principles of ecologically sustainable development (ESD) referred to in Clause 3 (g) are defined in Clause 4, and are the same as those used in the NSW Protection of the Environment Administration Act 1991. The principles require the integration of economic and environmental considerations in decision-making processes, to be achieved by applying the precautionary principle, seeking to ensure inter-generational equity, conservation of biological and ecological integrity, and improved valuation and pricing of environmental resources.

Provisions of the Act

The Act regulates the management of native vegetation on private land in NSW. It is not applicable to lands covered by other legislation or zoned residential. The main target of the Act is land privately held by rural landowners, either in freehold or lease.

The Act gives the Minister and the Department of Land and Water Conservation the power to control land clearing or native vegetation modification, where it involves native vegetation. It broadly defines native vegetation to include native trees, understorey, groundcover and plants in a wetland (but not marine vegetation).

The Act defines clearing native vegetation in a very broad way. Clearing includes cutting down, logging, killing, destroying, poisoning, ringbarking, uprooting

and burning. It extends to severing, topping or lopping branches, limbs, stems or trunks and substantially damaging or injuring native vegetation in any other way. In other words, the definition of clearing is very wide and allows application of the Act to any activity that might harm or modify native vegetation. This would also allow its application to prevent planting of favoured species to force out native vegetation by competition.

The Act uses six main mechanisms to achieve its objectives. They are development consent, regional vegetation management plans, native vegetation codes of practice, property agreements, provision of a Native Vegetation Management Fund (which can be used in conjunction with property agreements), and the use of consultative bodies at State and regional levels.

Development consent

The Minister for Land and Water Conservation, in accordance with the Environmental Planning and Assessment Act 1979 (EPA Act) has development consent to allow clearing, as defined in the Act. There are two key issues with this power. The first is that the involvement of the Minister is likely to lengthen the time taken to gain development consent.

The other key feature is the ability of third party objectors to lodge legal appeals against the granting of development consent to any applicant. This provision considerably widens the power of the community to become involved in the decision-making process, and provides significant incentive for applicants to

consult widely with potential objectors. This can also considerably add to the cost and time taken by an applicant to obtain development consent.

Development consent is not necessary where an approved Regional Vegetation Management Plan provides for such clearing.

Regional Vegetation Management Plans

The Act provides for the development of regional vegetation management plans. These can be prepared by Regional Vegetation Committees, or the Minister may require the Director-General of DLWC to prepare one. The initiator of the plan must consult with the Director-General of National Parks and Wildlife before preparing the plan, and the Minister must approve it prior to its implementation. The Minister also must consult with the Advisory Council and the Minister for the Environment prior to approval being granted.

Regional Vegetation Management Plans must take into account a number of matters.

- Conservation of native vegetation, native species (especially threatened species) and their habitats
- Conservation of soil and water resources, archaeologically and anthropologically sensitive or significant areas of land, as they relate to native vegetation management
- Social and economic aspects of land uses as they relate to native vegetation management

- Any instrument made under any other Act that applies to the region (or part) and makes provision with regard to native vegetation
- Any other aspect considered necessary or desirable by the Minister.

The Director-General of DLWC has the power to refer the plan back to its initiator if it is deemed to not be in accordance with the Act. Once the Director-General is satisfied that a plan is suitable for public exhibition, it must be publicly exhibited for at least 40 days, with suitable advertising. The plan initiator must consider any submissions made following that public review.

An approved Regional Vegetation Management Plan has status as an environmental planning instrument, for the purposes of Part 4 of the EPA Act. In effect, it is subordinate to the provisions of that Act, allowing appeal through the courts.

Native Vegetation Codes of Practice

These codes of practice are intended to regulate native vegetation clearing for specific purposes, such as clearing for establishing a timber plantation. It must not be inconsistent with the Objects of the Act. The Minister must consult with the Advisory Council prior to approving a Code and it must be adopted by regulation.

Property agreements

These agreements are designed to encourage landholders to develop an integrated approach to vegetation management and provide for the conservation

and management of native vegetation on properties. An important aspect of property agreements is that they may contain details of any financial and technical assistance provided by the Department to assist the landholder in native vegetation management.

Importantly, property agreements attach to the land, rather than one specific owner. Therefore, any agreement remains in force, even if the land changes hands while the agreement is in force.

Native Vegetation Management Fund

The Act provides for the establishment of a Native Vegetation Management Fund. Initially, the NSW Government provided $15 million for the fund. The fund's use is subject to Ministerial authorisation and must be used in connection with the Act's objectives.

Advisory Council and Regional Committees

The Act provides for the establishment of a Native Vegetation Advisory (NVAC) Council and Regional Vegetation Committees. Membership of these committees is similar, in that they include a wide range of stakeholders. Members of both the Advisory Council and the Regional Committees are drawn from rural interests, conservation interests, catchment management committees, local Government, aboriginal interests, a recognised scientific expert and NSW Government representatives (DLWC, Department of Agriculture and the National

Parks and Wildlife Service). In addition to these members, there is provision for a landcare representative on each Regional Vegetation Management Committee.

The Regional Vegetation Management Committees prepare, monitor and review regional vegetation management plans for their region, although the plans are subject to Ministerial approval. The Regional Vegetation Advisory Council has a more policy-oriented role, providing advice to the Minister about the status of native vegetation, regional management plans, codes of practice and use of the Management Fund.

Exclusions and Exemptions

A number of exclusions and exemptions have been developed for the Act (DLWC 1998c). Many exemptions relate to land that is covered by other Acts or agreements, or deemed to be environmentally sensitive. Some significant exemptions from the need to obtain development consent are listed below:

- Clearing up to 2 hectares per year for any contiguous landholding in the same ownership
- Removal of up to 7 trees per hectare per year for on-farm uses, such as fence posts and firewood
- Lopping for use as stock fodder in declared drought regions, if the continued health of that vegetation is not harmed
- Clearing necessary for construction, operation and maintenance of farm structures (dams, tracks, houses, sheds, etc.)
- Burning as part of an approved bushfire management plan

- Planted native vegetation for forestry, agriculture, etc.
- Private native forestry which is logged on a sustainable basis or managed for forestry purposes
- Regrowth removal, if the regrowth is less than 10 years old
- Noxious weed removal
- Vermin control if clearing is necessary

There are other exemptions applicable to leasehold land in the Western Division, some forms of State protected land (covered by other Acts) and other land covered by other Acts. Some specific lands in a number of local Government areas are also excluded form the Act.

Current Status

The Native Vegetation Advisory Council has met several times, the last in 1999 (Source: Inall – Appendix 1.4). The Council has commissioned a proposed series of background papers, covering ecology, social, economic, aboriginal and greenhouse issues. As at February 2000, only 1 report, 'Setting the Scene – The Native Vegetation of NSW' (Benson 1999) was available for public use. The others have not been released and were not available for use in this thesis (Source: Native Vegetation Advisory Council Executive (NVCA), February 2000). The Benson report was used extensively in the impact assessment phase of this thesis (Section 3.4).

In its 1998-99 Annual Report, the Department of Land and Water Conservation forecast that a Draft Native Vegetation Conservation Strategy would be released in 1999-2000 (DLWC 1999b: 9). This has not been released and will not be available for some time (Source: NVAC Executive February 2000).

The NSW Farmers Association has been highly critical of the Act, believing it to be unworkable and unable to deliver the desired conservation and production outcomes (NSW Farmers Association 1998a). They believe the process to be bureaucratic and complex. They also felt that the Department's emphasis has been on enforcing the more restrictive aspects of the Act, rather than being focussed on providing information and support to landholders. As a result, on 6 May 1998, the NSW Farmers Association indicated that they would not nominate a representative to the Native Vegetation Advisory Council (NSW Farmers Association 1998b). This was confirmed in October 1999, at the NSW Farmers Association General Council Meeting (NSW Farmers Association 1999: 6).

As at December 1999, no Regional Vegetation Management Plans were in place. A draft plan for the mid-Lachlan region was prepared and released for public comment in 1999 and was with the Minister for approval as at February 2000. Twelve other plans are in preparation across the State (Source: NVCA Executive February 2000).

The Vegetation Management Fund has been well utilised, despite a slow start. As at 28 January 2000, $3.8 million had been allocated across NSW and a further $8.8 million was estimated as being required to satisfy current expressions of interest (Source: NVCA Executive February 2000).

In January 2000, the Minister for Land and Water Conservation announced that between 1 January 1999 and 10 December 1999, 784 applications for clearing had been received, covering 168,000 hectares, an increase on the whole of 1998 (Tenterfield Star 2000: 8). Most of the applications had referred to thinning activities rather than full-scale clearing.

No prosecutions had been made under the Act up to December 1999. Many applications had been made, and about 85,000 hectares has been approved for clearing (Wright – Appendix 1.8).

Other States

Denys Slee and Associates (1998) conducted a wide–ranging review of legislation and incentive programs for the management of remnant native vegetation across Australia during the early part of 1997. This section is largely drawn from that report.

Native vegetation clearance is controlled by legislation in NSW, Western Australia (WA), South Australia (SA), Victoria (Vic) and Queensland (Qld). At the time of legislation in these States, the rate of clearance had already dropped, mostly because broadacre clearance had ceased to be a feature of rural land use. These pieces of legislation all covered native vegetation from grasslands up to forest, and all had some exemptions for standard farm activities.

Since that report came out, the Queensland Government has moved to bring its native vegetation legislation into line with other States, introducing legislation in December 1999, although it has not been enacted yet. The

Queensland Government has stated that it will not enact the legislation until the Commonwealth Government provides compensation assistance of $100 million for affected landholders (Source: ABC Radio National Report 14 February 2000). The lead-up period to this legislation was marked by a sharp increase of clearing by farmers fearful of future restrictions limiting their capacity to develop their properties, and the protests have continued into the year 2000.

The administration of such legislation varied between states, although all reported some tendency towards regional planning and management. Legislation usually allows appeal by landowners to decisions by controlling authorities, although third party appeal rights (as provided in NSW) are not common.

No State pays compensation to landowners for the loss of farm value or costs incurred by imposing clearance controls, although SA and WA have provided some assistance in the form of fencing funding. SA has made some money available to farmers for weed and vermin control.

The report found that landholders did not accept the argument put forward by many people that less clearance had an automatic economic benefit through reduced salinity and soil protection. As an example, salinity is not a problem for all regions or landholders.

In summary, landholders in the four States believed that legislation was controlling land clearing, but was not necessarily effective protecting native vegetation. Financial assistance for those required to retain native vegetation was needed. Management, education and incentives programs were needed if native vegetation conservation was to be improved.

Summary

The Act's objectives are to control native vegetation clearing and to implement ecologically sustainable development through the use of a range of tools. The tools include the requirement of consent authority to modify or clear native vegetation. It establishes regional and State level consultative forums and a mechanism to develop regional-based management plans within which landholders could undertake a range of activities. It provides a mechanism for individual landholders to voluntarily agree to undertake ameliorative works and obtain financial assistance from Government.

A wide community role in decision processes is guaranteed by the provision of an appeal mechanism under the Environment Protection and Assessment Act 1979.

The Act's focus is largely on 'rural' or farm landholders. The Department of Land and Water Conservation has a great deal of responsibility under the Act.

The Act has gained little support from its principal stakeholders, NSW farmers, if the reaction of the NSW Farmers Association is indicative of a widespread view. Despite the Act's implementation in early 1998, it has been reported that 85,000 hectares was approved for clearance in 1998.

3.2 STAKEHOLDER ANALYSIS

Introduction and background

Stakeholder analysis (SA) is defined as

'a holistic approach or procedure for gaining an understanding of a system, and assessing the impact of changes to that system, by means of identifying the key actors or stakeholders and assessing their respective interests in the system' (Grimble and Wellard 1996: 2).

They also note that the most fundamental difference between different stakeholders is likely to be whether they affect (determine) decisions or actions, or are affected by decisions or actions. The terms active and passive stakeholders can be used for these two groups, although some stakeholders may fall into both categories in different aspects of their behaviour.

Stakeholder analysis provides the analyst with an understanding of problems and interactions between the different groups involved with an issue. As impact analysis is largely about assessing the impacts of actions on people, their economy and the environment they live in, the stakeholder analysis is presented at the start of the impact assessment process.

This stakeholder analysis relies heavily on information made available by key stakeholders in interviews conducted in December 1999 (transcripts in Appendices 1.1 to 1.8), and on some written material either publicly available or provided privately to the author.

The methods used in this analysis were to first identify a range of stakeholders and identify the appropriate representatives to interview. Interviews were conducted in December 1999 and transcripts prepared and passed back to the interviewees for comment. The interview process provided a large amount of information that will also be used in the following social, economic, and ecological analysis.

Interviews took the form of exploratory discussions, rather than standardised interviews. The purpose of the interviews was to gain insight into issues and ideas. A standard set of questions was used for the face to face interviews (see Appendix 2) to ensure that a common range of issues was raised with each interviewee. However, this did not prevent more wide-ranging discussion. The interviews were not recorded.

Stakeholder Identification

The principal stakeholders affected by this Act are:

- Active – State Government Ministers, State Government Departments, farmers, local government, Native Vegetation Advisory Council, Regional Vegetation Council members, NSW Farmers Association, Nature Conservation Council, Local Government and Shires Association
- Passive – support businesses in NSW, urban residents (taxpayers), Commonwealth Government, indigenous people

Table 3.1: Relationship of Interviewees to Stakeholders

Interviewees	Broad Grouping	Stakeholders	Active/ Passive
Department of Land and Water Conservation officers – Robert Adam (Appendix 1.1) and Tim Wilkinson (Appendix 1.7)	State Government	Department of Land and Water Conservation (DLWC)	Active
Neil Inall, Chair of NVAC (Appendix 1.4)		Native Vegetation Advisory Council (NVAC)	Active
Local Government and Shires Association – Debra Rae (Appendix 1.5)	Local Government	Shires and Local Councils of NSW – about 120 affected by Act	Passive/active
NSW Farmers Association – Simon Carson (Appendix 1.2)	Private business	Farmers	Passive/active
Australian Forest Growers – Alan Cummine (Appendix 1.3)		Private forest managers	Passive
Conservation Council of NSW – Peter Wright (Appendix 1.8)		Conservation groups	Active
David Sullivan – Herron Todd White Valuers, Dubbo. (Appendix 1.6)			Passive

In selecting people to interview for this analysis, focus was placed on those peak level organisations that would have a wide perspective on the issue. The purpose of the review was to uncover the statewide issues, rather than local specific issues.

Table 3.1 (page 48) lists the interviewees and the organisations to which they belong. The transcripts of the interviews are shown in Appendix 1 of this essay.

Summaries of Stakeholder Views

The following summaries are based on the transcripts in Appendix 1, any written information supplied by those people and on other literature.

State Government

The NSW State Government and its agencies are the only fully active stakeholders in the implementation of the Act. The Department of Land and Water Conservation (DLWC) holds most of the power through legislative Responsibility for the Act. The National Parks and Wildlife Service also has strong capacity to affect the outcome of decisions made about native vegetation management.

Appendices 1.1 and 1.7 contains transcripts of discussions with 2 different officers of DLWC. Their major concern is to implement the Act's provisions as efficiently as possible. Robert Adam saw a need to implement better extension and education services to better equip landholders to deal with the issues raised by the Act. He also believed that a number of farmers are being helped to make

better decisions about future management, possibly saving them from poor investment in clearing which may never be paid back. He also saw a growing gap between traditional farmers and new landowners. The newer landowners have tended to be more receptive to working with legislation and Government Departments.

Tim Wilkinson also saw benefits for farmers in the provision of essentially free economic advice, in some cases showing farmers that their proposed clearing was not going to generate sufficient revenue to payback the clearing costs. There is therefore an educative function to the consent assessment process. He also saw the pre-application phase as very useful in encouraging dialogue with farmers.

Native Vegetation Advisory Council (NVAC)

Neil Inall, chair of the NVAC, saw education and extension as a major future issue (Appendix 1.4). He believed that the whole question of compensation to farmers for lost productivity will have to be addressed one day, if real progress is to be made.

He also saw a growing lack of capacity for rural communities to take on society's new priorities. He called it volunteer fatigue, where rural people have to put time into groups such as Rural Fire Brigades, Landcare, School Boards etc. Many of these public goods are paid for by public funds in larger cities, but it is assumed that rural communities have to fend for themselves (fire-fighting services are a good example of this difference of treatment).

Neil believed that the Act is effective and needs no amendment yet. He also saw that the native vegetation issue has to be better linked to other environmental problems.

NSW Farmers Association

Simon Carson of the NSWFA (Appendix 1.2) provided the most negative comments of all on the Act's implementation. The NSWFA contributed to the development of the Act, only to see it change focus in Parliament. They have refused to be involved in the Native Vegetation Advisory Council on the basis that it allows inadequate representation for farmers.

Simon felt that the funds provided through the Act were too limited ($15 million for 40,000 farms) and its use too restricted. The Act was having an inequitable effect on individual farmers across the State. The costs of managing the land for conservation and dealing with the bureaucracy were imposing financial burdens with little or no benefits for farmers.

There was a view that the Act is being applied inflexibly and the initial desirable regional focus had been lost.

Conservation Council of NSW

Peter Wright (Appendix 1.8) felt that the Act had been applied ineffectively. DLWC still allows too much clearing of land, and the funds provided are insufficient and not used effectively. He also saw a skills gap in DLWC's administration of the Act. The information base needed to be improved.

The economic benefits of retaining native vegetation have been undervalued, at least partly because of poor information about some effects.

Local Government

Debra Rae (Appendix 1.5) notes that local Government felt that the regional focus of the Act was inadequately emphasised. Regional Vegetation Management Committees often cover several local Government areas, but only have one local Government representative on each. This needs to be addressed.

In common with farmers, local Governments were concerned about the effect of the Act on the rural economic outlook, although Debra agreed that it would be hard to separate the effects of the Act from other issues, such as declining commodity prices.

Australian Forest Growers

Alan Cummine (Appendix 1.3) noted that private forest growers were being left out of this debate. Private forest harvesting of native forests falls well outside the restrictions of the Act and really needs to be separately handled. DLWC has little expertise in this area and there needs to be more forestry consideration.

AFG would like to see forest growers' representation on the Regional Management Committees.

Indigenous People

Indigenous Australians have unique relationship with the land and the native vegetation and animals that live on it. In the Northern Territory, Greening Australia have observed that aboriginal people can use native vegetation and animals as a food and traditional medicine source (Price 1995: 45). This is a potential source of gain for aboriginals who own rural land in NSW.

There is a further implication for non-aboriginal owners. Aboriginal people might well be able to lead the way in developing new (or reshaped old) economic uses of native species.

Other

David Sullivan (Appendix 1.6) from Herron Todd White Valuers, based at Dubbo, has undertaken some analysis of the impact of the Act of farm values. He has concluded that there has been a marked decline of land value in some areas, especially where that property still has native vegetation.

Community Involvement

A number of stakeholders commented on the level of community involvement in the development of the Act, its current operation, and the best future level. The level was assessed using a continuum approach, adapted from Carter (1996: 4). Table Appendix 2.1 (page 149) shows the progression from the lowest level, no community involvement, through co-option, co-operation, consultation, collaboration, co-learning to the highest level, collective action.

A summary of the views of those stakeholders who were interviewed is shown below.

- Development of the Act – all stakeholders believed that the Act development phase was marked by consultation and collaboration. At this level, the community was involved in giving opinions and to some extent involved in priority setting, but outsiders remained firmly in charge of the process. This is not surprising where legislation is concerned. Political representatives will always keep firm control of the final decision.
- Permit system – all stakeholders agreed that the permit granting process had no community involvement at all. It is a process of following prescriptive legislation and Departmental guidelines.
- Regional Management Planning - there were divergent views. DLWC and the Conservation Council feel that Regional Planning is very consultative, involving co-learning, where the local communities and outsiders work together to develop joint plans. Conversely, the NSW Farmers Association and Local Government and Shires Association feel that the planning process is at best co-option, where the community representatives have no real power in the process.
- Future – the views reflect the current state of satisfaction with the current process. The NSW Farmers and Local Government believe that the focus of native vegetation management should shift to local communities, where the local community runs the process. The Conservation Council and

DLWC believe that there has to be outside involvement, and that joint planning and facilitation is the best approach.

Conclusions

All interviewees felt that the goals of the Act were desirable warranted, agreeing that land clearing had become a problem that had to be controlled. There was little agreement about the way in which it had been implemented.

The private sector landholders tended to a view that the Act was imposing an inequitable burden on them, by requiring them to shoulder the costs of urban community values on rural communities. They all believed that Government should invest more resources in native vegetation management although there is disagreement about how that would be best achieved (compensation vs stewardship funding).

3.3 IMPACT ANALYSIS

This part of the analysis seeks to identify the key impacts of the Act. It achieves this by undertaking ecological, social and economic impact analysis. There is some degree of overlap, as some impacts have a wide-ranging effect.

For the purposes of this analysis, the social, economic and ecological impact analyses will use the terms positive and negative impacts to group various impacts.

As part of each analysis, some risk assessment will be conducted, rather than as a separate section at the end.

3.3.1 SOCIAL IMPACT ANALYSIS

Introduction

> Social impacts are
>
> 'the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organise to meet their needs, and generally cope as members of society' (Interorganisational Committee on Guidelines and Principles for Social Impact Assessment 1995: 11, 12).

Social impact assessment is therefore a process that seeks to assess or estimate in advance the social consequences of specific policy actions.

Part of social impact analysis is an assessment of the level of community involvement in decision-making and any equity effects. The level of community involvement in both the process and in the assessment phase is a key issue (Burdge and Vanclay 1995: 33). The stakeholder analysis in the previous section identified the key stakeholders in this analysis. An assessment of community involvement, based on stakeholder interviews and other material, will form part of this analysis.

Equity is a key concern of social impact analysis (Burdge and Vanclay 1995: 57) and of ESD. For this reason, an analysis of the equity effects of social impacts will be considered as part of this section.

In the context of this review, social impact assessment will focus on identifying the main social issues arising out of the Native Vegetation Conservation Act, both in the two years since its promulgation and for the future. As with the other parts of this overall impact assessment, the review will focus on the broader level issues.

One feature of social impact analysis is the difficulty in separating the impact of this Act from that caused by other factors. Dwindling commodity prices, changing population structure and the influence of improved technology are all having profound effects on rural life.

Background Information

There are about 40,000 rural landholders in NSW (Source: Simon Carson – Appendix 1.2). The population density falls rapidly west from the NSW coast and

outwards from the Sydney Basin. The largest individual landholdings tend to be in the far west of the State, and the number of people supported by that land reduces in the west.

These rural communities are serviced by a range of towns, with a concentration in the central west. Larger towns such as Bathurst, Orange, Wagga, Dubbo, Albury and Tamworth provide significant regional services. Smaller towns are often in decline, partly due to reducing population and withdrawal of services such as banks and schools.

Rural decline is gaining an increasing level of political importance, exemplified by an announcement made by the Australian Prime Minister in February 2000. He indicated that the Commonwealth Government would take direct steps to prevent the further erosion of Commonwealth Government services to rural communities.

Positive Impacts

Building Community Partnerships

DLWC, in Factsheets No. 1 and 2 (DLWC 1998a, DLWC 1998b), sees benefit in building community partnerships and increased community involvement in sustainable land management. It sees the Regional Committees, the provision of management funds and the increased importance of property management agreements as being of positive social value.

Integration with National and International Approaches to Native Vegetation

In Factsheet No. 2 (DLWC 1998b), the Department emphasises the importance of the Act in addressing the growing community concern at the State, national and international level, about the future of native vegetation, and to stop the high level of clearing.

Streamlined administration

In Factsheet No. 2 (DLWC 1998b), streamlining administration of native vegetation in the State is claimed as a positive impact. The level of complexity for management of native vegetation has been simplified by this Act, by combining into one piece of legislation the provisions formerly contained in several laws.

Provide third party access to planning and management

The Act provides for third parties to appeal against decisions made under it. This is a significant step forward in terms of wider community access to decision-making and planning, although it also represents a direct loss of control for individual landholders, and could potentially impose significant financial costs on Government and individual landholders in terms of the legal process.

Availability of natural landscapes

ANZECC (1999: 15) sees social benefits in the provision of places of scenic beauty and sites for tourism and recreation. It does not, however, indicate how the

difficult issues of access and management impact on private land would be overcome.

Negative Impacts

Increased bureaucratic processes

Both Simon Carson (Appendix 1.2) and Alan Cummine (Appendix 1.3) commented that the Act and its implementation have increased the bureaucratic processes faced by rural landholders in their operations. The Regional Planning process is highly bureaucratic and centrally controlled.

Inequitable implementation 'costs'

Simon Carson (Appendix 1.2) notes that rural landholders feel that the Act has been inequitable in its impact, requiring private landholders to bear the 'cost' of implementing society's environmental goals.

Peter Wright (Appendix 1.8) agreed with this view, and sees a role for funding assistance in future implementation. Peter believes that if this issue is not addressed, the Act may eventually fail to achieve its objectives, because the resulting inequity will ensure that people will continue to lobby against it.

Increased uneconomic workload

The Act provides for regional vegetation planning and an increased level of Government involvement in native vegetation management. All of these are likely to involve rural landholders in an increased level of non-economic activity.

Committee membership imposes time-loss problems for people. Neil Inall (Appendix 1.4) sees an overload of rural communities, who already have to give up time to provide unpaid assistance for activities that are essentially public goods (school fund-raising, bushfire brigades).

The planning processes also involve the development of negotiation and planning skills, which may not be present in many stakeholders. The capacity is there, as evidenced by the success of Landcare, but the time and information may be hard to find.

Reduced rural population

Simon Carson (Appendix 1.2) noted that the Act contributed to a loss of economic activity, and therefore job opportunities, in rural areas. Debra Rae (Appendix1.6) commented that while the Act had been attributed as leading to the continued decline of some towns, it was in fact hard to separate the effects of the Act from other changes.

It seems likely that where the Act is leading to a loss of economic activity, there may be some effect of the viability of properties, leading to lower rural populations. However, population decline can be attributed to a much wider range of social issues.

Risk Assessment

The major risk associated with this Act seems to be the possible loss of a viable rural community, able to accept and implement society's changed priorities

for native vegetation management. As Simon Carson observed, only a few years ago, people in rural lands were being actively encouraged to clear land for more economic uses (Appendix 1.2). It will take time for these new more environmentally-aware priorities to be accepted and implemented by landholders. Many rural communities need financial and skills development assistance in dealing with these new priorities.

Community participation

The earlier stakeholder analysis presents some comments on the level of community participation as viewed by the principal stakeholders. The main feature that arises is the view of regional groups that they should be given control of their own destiny, while the urban-based central groups see a need for the wider NSW community to be involved and reflect their needs.

The Act contains mechanisms to facilitate community participation in planning and providing advice, although the Regional Plans are subject to Department and Ministerial control. The development application system is a policing role that allows no participation.

Neil Inall (Appendix 1.3) suggested that an important future goal should be to be to increase the education function, and provide the whole community with more information about the reason for the Act and the best way to achieve its objectives.

Equity Effects

The main equity impact of the Act has been to require a group of private landholders to change their management arrangements to better conserve the State's native vegetation. The burden of improving native vegetation management therefore falls on a relatively small group of people, while the benefits of the improvement are enjoyed by the wider NSW community and future generations.

The NSW Farmers Association and the Conservation Council both agree that the private landholders have had inequitable costs imposed on them, although they disagree about the best ways to alleviate that problem.

Conclusions

Much of the impact of the Act has been in the form of improving the management of native vegetation while increasing the level of regulation and uneconomic workload faced by landholders in managing their land. The analysis suggests that it is in the area of equity and public participation where much future work is needed.

3.3.2 ECOLOGICAL IMPACT ANALYSIS

Introduction and Background

Ecological impact analysis has been defined as

'a formal process of defining, quantifying and evaluating the potential impacts of defined actions upon ecosystems' (by Treweek 1995: 172).

In the context of this study, ecological impact assessment will be principally used to identify the major ecological issues involved in native vegetation management and to attempt to assess their relative importance for decision-making and review. This assessment will focus principally on baseline information and impact assessment, based on the information available.

Baseline Information

This information is based largely on work done by John Benson (Benson 1999), as part of series of studies commissioned by the NSW Native Vegetation Advisory Council.

Land area

Benson (1999: 9-19) has used 17 Interim Biogeographic Regionalisation for Australia (IBRA) Bioregions to collate land area, clearing levels and area of reserved land for NSW. The following key points emerge:

- There are about 80 million hectares in NSW

- About 28 million hectares (35%) has been cleared of native vegetation
- Clearing has not been evenly spread, but has been concentrated in the more arable lands of the western slopes and flatter tablelands.
- As an example, 5 bioregions (Southwestern slopes, Northwestern slopes, Southeastern highlands, the New England Tableland and the Brigalow belt near Coonabarabran) make up only 28% (23 mill ha) of the State, but account for 69% of all clearing (16 mill ha). 85% of the southwestern slopes and 66% of the northwestern slopes have been cleared.
- By the 1980s, the large-scale clearing seen during earlier European settlement had decreased significantly, although it continued in areas suitable for large scale cropping.
- Much of the uncleared remaining native vegetation has been subjected to grazing by both stock and feral animals, altering the vegetation structure. This is particularly evident west of the escarpment.
- Only 6% of NSW is held in conservation reserves, largely concentrated in the coastal escarpments and alpine areas. Large areas of the State are poorly represented in reserves.

Biodiversity

There are about 5,300 native vascular (higher) plants in NSW, from semi-arid shrub and grassland to rainforest and alpine herbfield (Benson 1999: 8). This reflects the range of climatic and geological patterns in the State.

There are between 600 and 1000 plant communities in NSW, although not all have yet been fully documented or investigated (Benson 1999: 8). The 17 bioregions discussed above are all very heterogenous in nature, all containing a range of different ecosystems and species.

Benson (1999: 20) also highlights the difficulties associated with native grassland management. Its low lying nature makes its large scale monitoring difficult. It is also highly subject to seasonal variation, requiring regular monitoring. Grasslands often require periodic disturbance through fire, grazing or mowing.

Other species, like fungi, have a vital role in ecosystem health, but are not well recorded and difficult to monitor (Benson 1999: 6).

Land Tenure

Most of the remaining native vegetation is actually located on public (Crown) land. This includes conservation reserves, state forests, vacant crown land, travelling stock routes and stock reserves (TSRs), and various types of crown lease to farmers in eastern NSW and the Western Division (Benson 1999: 34).

In places like the heavily cleared wheatbelts, these TSRs often contain the largest areas of native vegetation. This is due to historically low levels of grazing use in those areas, which has allowed the native vegetation to recover from grazing damage in the unused period.

In the central and eastern divisions, 1 million hectares of Crown leasehold land are considered to be very important, if not critical, for species and habitat conservation. They are a de facto reserve system.

Most of the Western Division (32 mill ha or 40% of State) is still under native vegetation. It is held as land leases and mostly used for grazing. The Act covers these lands.

Positive Impacts

Given that the Act was designed to improve native vegetation conservation in NSW, it is not surprising that the projected ecological benefits are major.

Prevention of inappropriate land clearing

DLWC (1998b: 2) in its Fact Sheet No. 2, notes that up to 150,000 hectares of native vegetation was cleared in NSW each year, prior to the introduction of the Act and its predecessor, SEPP 46. Peter Wright has reported that he has been advised that this had been reduced by 30%, saving 45,000 ha of clearing per year. There is some question as to whether that reduction has been due to the Act or to the downturn in the rural economy. The decline of rural commodities has reduced the funds available to farmers, and this may have reduced the clearing through unaffordability.

Conservation of native vegetation species and ecosystems

Better native vegetation management can maintain biodiversity and ecological processes (ANZECC 1999: 15). The Act has a wide definition of clearing, which includes modification and manipulation of the native vegetation. This means that it can reduce clearing levels and can prevent selective

manipulation of the vegetation. Activities such as logging, grazing, slashing of grass, pruning for fodder, burning and exotic tree species planting can all have damaging effects on the existing native vegetation and ecosystems.

Water resource and soil protection

Improved management of native vegetation can lead to improved water resource and soil management through erosion reduction, nutrient control, sediment control, protection against wind and water erosion, maintenance of watertable levels, amelioration or prevention of salinity, and maintaining water quality and yields (ANZECC 1999: 15).

Pollution alleviation and carbon sinks for greenhouse gases

Native vegetation can play a role in breaking down and absorbing pollution. It also can act as a carbon sink for greenhouse gases (ANZECC 1999: 15). These features are shared by exotic species, especially in plantation forests.

Negative Impacts

Continued clearing

The major negative impact of the Act has been that it continues to allow clearing in the State. Peter Wright of the Conservation Council (Appendix 1.8) comments that the Act has been applied in a way that favours socio-economic development at the expense of clearing or modifying native vegetation. He

understood that in 1998, clearing permits for 85,000 ha had been granted, although not all were to be done in that year (Wright 1999).

Simon Carson (Appendix 1.2) believes that the Department's implementation rules have led to unnecessary clearing. Under the Department guidelines, regrowth that is over 10 years old is considered to be native vegetation. There is some incentive then for landholders to clear any regrowth before it reaches that age, instead of allowing a longer period. This is a clear problem in some of the wheatbelt, where some long rotation cropping includes a 10-year plus period of fallow. In that period native grasses can regenerate, but the Act's provisions provide an incentive for farmers to shorten that fallow period under ten years.

Debra Rae of the Local Government and Shires Association (Appendix 1.5) sees a danger of over-clearing by farmers in reaction to the Act. The rules allow two hectares of clearing each year on any property regardless of size. If the estimated 40,000 farmers in NSW took advantage of that condition, 80,000 hectares could be cleared per year without control.

Weed invasion

Simon Carson of the NSW Farmers Association (Appendix 1.2) believes that the clearing restrictions are having a negative effect on noxious weed control, by discouraging landholders from taking simple action in predominantly native vegetation areas. This would be a particular problem in those native vegetation

areas that have been grazed only and still retain a large amount of native plants, but have been subject to weed invasion.

Inadequate Coverage

The Act only covers rural land in NSW, and does not take account of residential land in the large urban areas. This has the effect of limiting the capacity of the Act to stop loss of native vegetation in large urban areas like the Sydney Basin, where it is conceivable that some species and ecosystems are on the edge of extinction.

Risk Assessment

The major risk in ecological terms is the possibility that the Act will not actually reduce clearing enough to conserve biodiversity and ecological integrity. Its coverage is limited and the exclusions and exemptions, while designed to aid rural landholders in their everyday life, run the risk of allowing excessive loss of native vegetation without review.

Conclusions

The main ecological impact of the Native Vegetation Conservation Act is its capacity to directly control clearing and modification of native vegetation on rural lands, helping to guarantee the maintenance of the full ecology and species diversity of NSW. The Act does, however, continue to allow a significant level of clearing that could serve to undermine the predicted benefits.

Other positive impacts could result from any vegetation cover (reducing salinity, increased carbon fixing, erosion control, water quality improvement), and not necessarily native vegetation. However, the main contribution of native vegetation is that it is a more sustainable vegetative cover in the landscape, usually requiring less long-term management.

3.3.3 ECONOMIC ANALYSIS

Introduction and Background

Economic analysis of policies can be conducted by using cost benefit analysis techniques. Cost benefit analysis (CBA) enables an analysis to determine whether a project or policy will improve a community's economic welfare (Perkins 1994: 3).

CBA differs substantially from a financial analysis, which only looks at the direct monetary impact of a project or policy from the perspective of the proponent. CBA looks at the full economic impact, both in terms of direct monetary transfer, but also with regard to increased consumer value and costs.

In the case of the Native Vegetation Conservation Act 1997, a financial analysis would merely enable the Government to determine the direct costs to it of implementation, and any revenues which might accrue to Government. Farmers could conduct a financial analysis to determine the direct costs to them of operating under the Act compared to operating without the Act.

The advantage of the Cost Benefit approach is that it looks at projects and policies from a community welfare perspective, by summing all individual gains and losses. However, cost benefit analysis does not generally concern itself with equity. A project or policy can be said to 'improve welfare if those who gain could compensate those who lose, and still be better off themselves' (Perkins 1994: 50). The important point here is that an action would be beneficial if it were possible for winners to compensate losers, but they don't have to do so.

Cost benefit analysis uses monetary values for all benefits and costs to determine the relative welfare effect of actions. This necessarily means that all effects have to be expressible in monetary terms.

It is this monetary focus that is the major strength of cost benefit analysis, by allowing direct comparison of impacts, but conversely attracts the most criticism because many impacts are very difficult to express in monetary terms. In the area of social and ecological impact, many effects cannot be measured sensibly in monetary terms.

The concepts of externalities and public goods are important in economic analysis.

Externalities: these are defined as those benefits or costs imposed on society by an action, but which do not directly affect the action taker (Perkins 1994: 236). The classic negative externality is water pollution caused by manufacturing – downstream users experience polluted water, while the manufacturer incurs no personal pollution.

Public Goods: these are benefits from which a wider community cannot be excluded or reduced by consumption (Perkins 1994: 272). Public roads are usually seen as a public good, at least until the level of use reaches very high levels.

The importance of these concepts lies in the difficulty often associated with measuring them. Public goods are often a result of Government actions, but are

hard to value in economic terms, even though they have a beneficial effect. Alternately, externality costs imposed on non-benefiting private individuals by Government actions are also a problem.

Scope of the Economic Analysis

One feature of the analysis of this Act is the lack of any hard data on its economic impacts. Conceptually, there are many costs and benefits that can be attributed, but little information exists on the actual monetary value of the impacts of the Act. Nevertheless, a great deal can be deduced from consideration of the theoretical costs and benefits.

Consequently this analysis focuses on identifying the range of economic costs and benefits, rather than attempting to quantify them.

Positive Impacts (Economic Benefits)

Much of the literature about Native Vegetation focuses on the benefits of reducing its clearing and degradation, including potential economic benefits. In particular, ANZECC (1999: 15,16) and DLWC (1998b: 2) claim a range of benefits, although none are quantified.

Prevention of further economic loss

DLWC (1998b) note that reducing native vegetation clearing will reduce unintended and costly economic losses for NSW. Salinity, soil erosion and declining water quality are all considered as avoidable costs for farms, both in

terms of lost production and problem alleviation. Land clearing is considered to be a major contributor to these problems.

ANZECC (1999: 15, 16) supports this view by accepting that salinity, erosion, soil degradation and productivity loss are a result of declining native vegetation and land clearing.

Improved agriculture

ANZECC (1999: 15,16) also notes a range of direct economic benefits for agricultural production by limiting land clearing. They are:

- Shade provision for stock – heat stress reduction leading to weight gains, improved fertility and higher milk production
- Stock shelter – cold stress reduction decreasing lamb and sheep mortality (particularly following shearing) and improving growth
- Shelter and windbreaks for crops and pasture, reducing moisture loss and physical damage
- Habitat for predators (birds and bats) of crop pests
- Native grasslands for fine wool enterprises
- Sustainable agriculture – maintaining productive capacity of the land

Many of these benefits can be achieved in other ways. Fine wool can be grown on exotic grasses, pests can be controlled by physical removal or chemical control, and shelter and windbreaks can be provided by exotic tree species. The key benefit provided is that retention of native species is more sustainable.

Saved resources

DLWC officers (Appendices 1.1 and 1.7) see an economic benefit in saved resources from reducing uneconomic clearing. There is a view that much clearing has been wasteful in that the payback for the investment in clearing may never be realised, because the projected returns from cropping or grazing are simply not realistic.

New agricultural industries

ANZECC (1999: 15-16) also attributes economic benefits to the generation of 'new' agricultural industries. These industries have nearly all been in existence in some form for many years, but not necessarily in mainstream agriculture.

- Timber products – suggests that many farmers might utilise their native vegetation sustainably by developing a timber products market
- Providing a basis for future development of pharmaceuticals and agricultural crops
- Provide fodder resources in drought
- Honey production
- Native plant seed and wildflower production

Improved land value of existing cleared land

David Sullivan (Appendix 1.6) suggests that in some areas, the already cleared land has attracted an increase in value, simply due to an enforced shortage. However, the land values are much more likely in the long run to be a

reflection of its earning capacity, and such an economic benefit would be in the nature of adjustment, not a permanent benefit. This will also be offset by reduced land value of land with existing native vegetation.

Maintaining biodiversity and ecological integrity

As discussed in the ecological impact assessment, improved native vegetation management has the major benefit of maintaining biodiversity (or at least limiting further losses) and ecological integrity, by protecting endangered ecological units from degradation.

This has the potential to provide economic benefits to society, although any valuation is very difficult to achieve. Unless there is a commercial use for the native vegetation or associated fauna, all valuations are dependent on surveys or estimates all subject to bias and inaccuracy. In this case, it is more advisable to simply accept that there is a potential economic benefit, but no way to measure its value.

Tourism and scenic values

ANZECC (1998: 15) suggests that native vegetation has a role in providing benefits from the development of tourism industries and as scenic buffers between urban development and rural development. Both are significant and given the increasing trend towards urbanisation are likely to be important.

However, valuing such benefits will always be difficult in practice. Tourism involving natural areas is more likely to be in places with wilderness values and

where a 'spectacle' is involved. As most of the native vegetation of NSW affected by this Act lies in the western slopes and plains, where the dominant native vegetation is sparse forest, woodland and grassland, little value is likely to arise from tourism visits.

Use of native vegetation as buffer zones between cities and rural industries is never likely to be of high value, because of the small land area involved compared with rural landholdings.

Carbon sinks and credits

There is a potential value to landholders in using native vegetation as a carbon sink, and then selling this capacity in then form of carbon credits. Currently, there are projections that carbon credits could be valued at $10 per tonne, although the market for such economic values is very low.

However, much of the land concerned is of very low productivity, and much does not have a forested character. Nevertheless, if the average hectare of land was able to sink 1 tonne of carbon per year through effective management, the value of the carbon credit to NSW might be $470 million per year, based on a value of $10 per tonne. It is much more likely that this will be an option for landholders in the more productive western slopes, tablelands, mountain ranges and coastal plains. There would be active management required (therefore incurring costs) to achieve this benefit.

One major Japanese energy company has signed an agreement with NSW State Forest to plant trees as a carbon offset. Whether such benefits could

translate to rural landholders is hard to assess. At the very least, some organisation of efforts at an aggregate level would be required. This has potential in the heavily cleared western slope, where clearing levels have been very high and the land is relatively productive.

A more likely scenario is that the reduced loss of native vegetation will enable the State to reduce its need for other carbon minimisation activities. An accounting analogy is appropriate here.

- If a carbon 'ledger' were to be compiled and land clearing was a major contributor to the debit side, reducing that debit is a cost saving, and can be seen as a benefit. Therefore, the NSW carbon balance would be being partly offset by the loss from land clearing, allowing other carbon producers more leeway.
- The issue then becomes one about equity. Rural landholders have to bear the cost of managing native vegetation, while society in general enjoy the benefits.

Negative Impacts (Economic Costs)

Administration of the Act

DLWC has incurred costs in implementing and administering the Act, in the form of salaries and other costs. DLWC officers (Appendices 1.1 and 1.7) maintain that there are significant costs associated with processing applications for clearing under the Act, most of which is borne by the Department.

While the Act obviously attracts direct administration costs, in reality there has been no economic costs due to its implementation, as it simply replaces the prior administration program.

Compliance Costs

Landholders attract compliance costs in terms of their own time and resources. DLWC officers (Appendices 1.1 and 1.7) believe that the costs of landholder compliance are only potentially significant if the application is major. In that case, the costs relate to expenditure on ecological, cultural and other consultants, in order to provide the required information. However, a preliminary discussion with DLWC officers could avoid this level of expenditure, if the application was unlikely to succeed. In a very real way, the landholder could be given an early answer to their request by that pre-application discussion.

The role of the Vegetation Management Plans could be highly significant in this case. If the plans, when prepared and approved, are clear and unambiguous, the landholder could essentially be given a clear indication of the sorts of clearing applications that might succeed.

These costs are potentially high, given the large number of affected landholdings in the State.

Participation in Advisory Council and Regional Vegetation Management Planning

The Act provides for community and Government participation in an Advisory Council and a number of Regional Vegetation Management Committees.

Membership of such committees involves costs associated with lost opportunities for other work or attendance fees, plus the cost of servicing the committees (secretariat and consultants). Such costs would be minor in value.

Native vegetation management fund

$15 million was provided in the first instance for use as farm assistance in native vegetation management. After 2 full years of the Act's operation, about $3 million has been spent, although a further $8.8 million has been committed. If the fund is more heavily accessed by farmers in the future, this cost to taxpayers would rise.

Land management costs

Managing native vegetation incurs costs for landholders, through fire and pest management, fencing, and pest control. These are included because there are some views that there are no costs of land management for native vegetation, a view not accepted by the NSW Farmers Association.

Lost Land Value

The NSW Farmers Association (Appendix 1.2) estimates that there are about 40,000 private rural landholdings in NSW, although many of these would not be working farms, particularly those close to the major urban centres or on the coastal strip.

David Sullivan of Herron Todd White Valuers (Appendix 1.6) has made an estimate that up to 30% of land value has been lost in some properties in specific areas of NSW, although this has been offset by some increase in the value of land that does not have native vegetation. These costs are potentially very high, given the large number of landholdings and large area concerned.

Lost timber production

The Act imposes controls on the use of native vegetation for timber production. While there is provision for sustainable forestry in the Act, this may not permit economic harvesting to be conducted. The area of land suitable for forestry activities is limited to the eastern third of the State, on the coastal plains, mountains and in the western slopes near the mountains.

Alan Cummine (Appendix 1.3) sees the Act as being directly in opposition to the thrust towards private forestry. It really needs to better reflect the needs of private native forest growers.

Risk Assessment

The main risk in economic terms is the potential for some rural properties to be unable to operate economically in the future. This is somewhat exacerbated by the other changes in rural economies, due to commodity price reduction and changing community tastes. However, if a large number of farms become uneconomic to operate, there will be a consequent loss of jobs and income in rural

communities. There is a very real risk that large areas of land could be left in an unmanaged condition.

Conclusions

The economic costs of the Act's implementation are largely borne by the landholders and the Department. The benefits are largely in terms of ecological benefits, which will be very difficult to value or realise, except in the very long term.

CHAPTER 4

SUSTAINABILITY ASSESSMENT AND RECOMMENDED CHANGES

The final two stages of the process are to assess the Act against the ESD principles and then to propose any mitigation measures or modifications that could address the issues revealed by the assessment.

4.1 Sustainability Assessment

As discussed in Chapter 2, sustainable actions should satisfy a range of sustainability principles. This section will focus on using the information obtained in the impact assessment in Chapter 3 to analyse the Act in terms of its capacity to satisfy a set of sustainability principles.

It must be emphasised that the following principles are not listed in order of importance. Different observers will always place higher importance on different principles depending on their perspective and their major concerns. There is also some overlap between the different principles, which this analysis will seek to minimise.

Conservation of biodiversity and ecological integrity

The ecological impact analysis reveals a wide range of potential ecological benefits arising from the Act. This is achieved by legislatively restricting land clearing, by providing a regional planning process involving local stakeholders, and by providing some funds for assistance to farmers to better manage the native vegetation on their properties.

There is evidence that land clearing has been reduced effectively since the implementation of the Act's predecessor, SEPP46. Peter Wright (Appendix 1.8) reports that he has been advised that clearing has been reduced by 30%, a significant gain. This has been achieved in an era of rural downturn, when the drive for more 'efficient' farming through larger land area and broadacre methods may well have led to substantial increases in clearing. Alternately, the downturn may also have reduced clearing pressure through the unavailability of funds to undertake clearing and the poor profitability of many crops and land uses. In general, it seems safe to assume that the Act has led to reduced clearing. Reduced clearing (including modification) will lead to improved conservation of species and ecosystems that are located on private landholdings.

The regional planning process increases the level of information about the role of native vegetation available to regional communities. This consultative process will eventually lead to better land management systems, as landholders increase their knowledge in the planning process. The challenge will be to ensure that such information does not remain with regional committees, but is passed to individual farmers.

The Vegetation Management Fund, although limited at this stage, is a source of assistance to farmers to manage their remaining native vegetation for conservation values.

Despite these positive effects, some aspects of the Act and its implementation have reduced its effectiveness.

- Limited coverage – the Act does not cover any native vegetation contained within residential zoned land. This is a significant failure in terms of biodiversity. It is conceivable that endangered species could already only exist in areas located with the residential zones, particularly in the Sydney Basin.
- Exemptions – each landholder can clear or modify up to 2 hectares per year without permit. With 40,000 landholders, 80,000 hectares could conceivably be cleared, although many farms may have already cleared all native vegetation. Nevertheless, in some areas, this impact could be significant, particularly with on the urban fringes, where there is a concentration of small hobby farms.
- Limited resources – the Act does not provide sufficient assistance to rural landholders to manage native vegetation properly. $15 million is not much if spread over nearly 40,000 farms.

In conclusion, the Act will contribute to the conservation of biodiversity and ecological integrity, by virtue of its control of land clearing. The presence of a

range of controls, incentives and community planning has the capacity to improve ecological management.

However, the inflexibility of the Act in terms of providing resources to private landholders to manage native vegetation for the benefit of the whole community must be considered a threat to its future viability. A combination of failure to manage the native vegetation and political instability surrounding the Act could threaten the expected gains.

Conservation of cultural diversity

The issue of cultural diversity is very complex. While the Act and its implementation have increased the change pressure on many rural communities, it is hard to separate these from other factors. Commodity price decline, changing population structure, introduction of technology and the influence of immigration are all factors which are changing rural society in Australia.

There is some argument that the Act is actually contributing to the survival of rural culture by providing a more sustainable future for residents. The Act seeks to facilitate a change of rural land management practices by developing more sustainable methods of land use. Replacing native vegetation with more productive crops, grazing fodder or trees has shaped much of NSW, particularly the more heavily populated northern, central and southwestern slopes and plains. However, there is increasing evidence that this economic base is not going to continue forever, with salinity and soil erosion problems appearing in many parts of the State. A more sustainable future could be a better guarantor of the social and

cultural future of NSW, despite the fact that there would be some change in current structures.

Most indigenous communities are not reliant on private land for their lifestyle in NSW, although the impact of land rights legislation may change that over time. This Act may well offer an opportunity for more traditional land use practices to be implemented, if rural landholders are able to work with aboriginal communities to utilise the economic opportunities arising from native species and ecosystems.

There is a perceived loss of regional autonomy through the shift of power to urban political groupings and centralised Government Departments. There are also clear issues with equity and community participation that will be dealt with in later principles.

In conclusion, it could be argued that the Act will contribute to sustainability on cultural diversity grounds, not because it will conserve the current arrangements, but because it will eventually lead to a future that has a more sustainable outlook in the long term.

Improvement of individual and community well-being

As opposed to the conservation of cultural diversity, this principle says that an action should seek to improve the well-being of people and communities, rather than just conserve existing systems. In assessing this aspect, the economic factors are very important, although other measures (good health, high education level, low crime rates and equal rights) are highly relevant. However, these other measures are highly reliant on economic factors themselves.

The economic analysis shows that there is an expected positive effect on economic well-being, through the long term economic benefits obtained by improved native vegetation management. The benefits of native vegetation will be through the development of new industries (native foods, tourism, conservation services, sustainable forestry), reduction of erosion and salinity build-up, and development of a more sustainable future rural economy.

However, there are costs that are currently being borne by a small group of individuals, not the whole of society. The principal burden of implementing the Act is being felt at the farm level, through lost land value, changed management practices and time lost to deal with the bureaucratic provisions. In addition, the question of how the potential economic benefits of new industries can be practically achieved has not been addressed, rather rural landholders are being left to forge their own future path.

The question of equity of outcome becomes important at this point.

Intergenerational equity

Intergenerational equity is considered by some to be the core of ESD (Hamilton 1996: 16, 17). Future generations have a right to be able to enjoy access to natural resources and cultural diversity available to the current generation. Past generations are largely immaterial to this debate, as society can only learn from the past, allowing better decisions about current and future actions.

The measures contained in the Act offer a very good opportunity to provide for future generations. Its main aim, to reduce land clearing, will help to preserve

native species and ecosystems for the future. The inclusion of substantial modification (pruning, thinning, lopping and planting of non-native species) in the definition of clearing offers a much wider opportunity for native vegetation communities to be available for the future.

This Act is also intended to lead to a more economically sustainable farming system. Therefore, while there may be a negative effect on current farmers, future generations will inherit a more sustainable land management system.

The failings of the Act in regard to intergenerational equity lie mainly in its limited coverage, with urban lands subject to other controls, and in the exclusions and exemptions allowed. Clearing has been curtailed, but rural landholders can still clear a large area of land, as shown by information provided to the Nature Conservation Council (Peter Wright – Appendix 1.8).

Intragenerational equity

Intragenerational equity follows directly from intergenerational equity. If we are going to worry about the future of the next generation, it is only fair to also be concerned about the state of the current generation. In the case of this Act, it is clear that it imposes an inequitable burden on existing rural landholders.

In social and economic terms, the Act imposes negative impacts on the regional communities. It is seen by farmers as contributing to the current decline of rural communities by limiting their capacity to meet changing economic circumstances, although there is evidence that there are other factors involved in

this issue. The costs of implementing this Act fall directly on individual rural landholders, while the benefits are enjoyed by a much wider group of people.

One observer has projected a transfer of land value from uncleared to already cleared land in some areas (Sullivan Appendix 1.6). This is due to an increase in the sale value of cleared land, but a decrease in the sale value of land that still contains unmodified native vegetation or 10 year plus regrowth.

There are also costs involved in managing uncleared land to conserve the native vegetation.

Precautionary principle

Uncertainty is an important feature of all policy development and is particularly evident in environmental issues. It is hard to know exactly what the future will hold in any given situation, but often advisable to plan for it, particularly potentially major problems.

At its core, this Act meets the precautionary principle by accepting that there is a strong link between native vegetation clearing and the increase of salinity, soil erosion and greenhouse gas emissions, all of which have a potential high ecological and economic cost. There are still some who would argue that these problems are acceptable if the economic returns are high enough (allowing future amelioration or substitution), but application of the precautionary principle indicates that the risks of ignoring these problems is too high.

A great deal of land has already been cleared in NSW, including some which is now uneconomic to farm. Earlier controls in land clearing may well have

reduced the current problems faced in water quality. To delay further would be to risk even more problems, which would have a larger damaging effect.

Community participation in decision-making

Community involvement in decision-making is seen as a key principle of ESD. Without the involvement of the affected community it is very difficult to know if decisions are the best for that community and if they can be implemented effectively. If a policy or action works against the interests of a community, it will not have support and therefore it will be very difficult to make it work.

In the case of the Act, community involvement currently takes a variety of forms, as shown in the stakeholder analysis and SIA. In its preparation of the Act, the Government went to some trouble to consult with affected stakeholders through the NSW Vegetation Forum.

At least one significant stakeholder, the NSW Farmers Association (NSWFA), was not happy with the results of the consultation (Salvin 1998). They feel that the Forum made specific recommendations that were not included in the Act. Instead of a recommended regional based planning and approvals mechanism, the Act centralises much of the Act's powers at the Minister and central Department level.

This points to some dissonance between the NSWFA's perception of the goal of consultation and that of the Government. The NSWFA expected that the Vegetation Forum's recommendations would be accepted without variation, but this did not occur.

All parties agree that the Act's development consent provision is a fully non-consultative measure. It is enforced by the Department and not subject to consultative practices. All consultation in the Act is reserved for the Advisory Council and the Regional Vegetation Committees.

The Advisory Council and the Regional Vegetation Committees are consultative bodies, operating on a high scale of participation and involving co-learning, with regional communities and outside advisers working together to develop regional plans. However, the legislated membership of the Regional Committees and the Advisory Council has been of some concern to the NSW Farmers Association and the Local Government Association. Both believe that the committees' structures do not provide sufficient representation for their constituencies. This could create the impression that these committees are stacked against regional stakeholders, potentially devaluing their contribution.

The adequacy of the participation level largely depends on the perspective of the stakeholders. Most of the stakeholders view the process in terms of whether their priorities are considered adequately in the process. Those with a regional perspective want the process to rest with regional communities. Those with a State level perspective want the regional stakeholders to be involved, but would be keen to ensure that the basic intent of the legislation is achieved with some consistency.

Several observers commented that another key issue was the low level of education and extension provided by the Department. There is a great need with

such major policy changes to provide information to affected people, which will help them absorb the changes and adjust long held land use methods.

There is no right level of participation in ESD, as much depends on the issues involved and the tricky process of leadership. Ultimately, the State Government is elected by all of the people in the State, and consequently is meant to represent the highest possible form of participation. However, the mechanics of political leadership often means that decisions are made centrally which do not suit all stakeholders. The key issue is the extent to which stakeholders understand their role in the process and are able to operate effectively.

Integration into society's decision-making processes

Unless an action designed to enhance ESD is integrated into our society's decision-making processes, it cannot be totally effective. This Act is one component of a large body of NSW Government Legislation, and in this case is specifically designed to achieve environmental goals.

In terms of environmental legislation, the Act is designed to work in concert with other NSW Government legislation, particularly the Environmental Planning and Assessment Act 1979. The Act is therefore enforceable through the courts, a well-accepted process in NSW society.

Resources to implement the Act are provided through the NSW Government Department of Land and Water Conservation, which is subject to the Government and Parliamentary processes, such as budgeting, annual reporting and audit checks. Consequently, the Department's operation and therefore the Act, are also

scrutinised and balanced against other pressing Government policies. The balancing act carried out by Governments is subject to regular community review through elections, although the level of transparency of many Government decisions is often considered very poor.

The Act is less effectively integrated at the local Government level, principally because they are largely left out of the process. Local Government only has involvement in the regional planning and Advisory Council level, and their representation is at a very low level.

Summary

To a large extent, the Act does contribute to achieving ESD. It goes someway to satisfying all of the derived ESD principles, although in several cases, a lot more could be achieved with minor variation and better use of community resources.

It is in the area of equity and individual well-being that the Act has had the least satisfactory impact, and where the most useful changes could be made. The Act has the effect of providing potentially major benefits to the wider community, but imposing most of the costs on a relatively small group of landholders. Some mechanism to use some of those community benefits to offset the individual losses is a necessity for the future effective operation of the Act.

4.2 Recommended changes

The final step of the strategic impact assessment, as shown in Figure 2.3 (page 31), is to use the information gathered to improve the operation of the Act so that it becomes a more effective contributor to ESD.

The review process shows that while the Act is largely a positive contributor to ESD, its benefits are being undermined by some weaknesses. The issues of equity, individual and community well-being, participation and ecological impact should be addressed.

In many ways, the key issue is the failure of the Act to recognise that conservation of native vegetation on private land is a land use that competes with other economic land uses. The majority of land currently in private hands was purchased on the basis of using it for economic advantage. Therefore, use of that land for conservation of native vegetation has to have a value to its beneficiary, in this case the wider community. The first proposed change suggests a way to deal with that issue.

The other proposed changes support the use of the land for economic activity, improve the ecological outcome, and improve the participation and information systems in place.

Treatment of conservation use as an economic product

The Government and its regulatory bodies should treat conservation services provided by private landholders as a purchasable commodity. Modern Government management is moving more and more towards using private sector

sources to provide services. Health services, public transport, sporting facilities and urban services, all once the exclusive preserve of Government Departments, are increasingly being provided by the private sector. This is achieved through a variety of Government purchase and user pays arrangements.

This process could extend to conservation services provided by private rural landholders. Conservation could be seen as a good provided by private sector landholders, and purchased by the Government. Pricing could either be based on cost recovery or by tender if there is a excess of suitable land available. A contract arrangement could be used to control the process, and would include production targets, agreed levels of service, community access needs and regular review of progress.

The Department would have to change its focus to being a purchaser of conservation services, rather than its current role as a strict regulator. Additional funding would need to be provided.

Neil Inall's proposed Trust Fund, with land purchased by or gifted to it, should be considered. Often the land concerned has little actual value to rural landholders and they may be willing to give it to a trust, especially if the little value involved was tax deductible.

This option is preferable to the often discussed option of compensation. Compensation is often seen as a welfare measure or community 'right', and therefore does not imply that a service has to be provided. It also tends to pay people for producing nothing, rather than the more desirable goal of working to produce a service.

Development of economic opportunities

A number of economic benefits have been forecast to result from the retention of native vegetation. Many of these, such as tourism, sustainable agriculture, carbon credits, native seeds and plants, and sustainable forestry, are still largely potential benefits only. Investment is required to assist regional communities to both develop these opportunities and to market them.

The Vegetation Management Fund could be used to fund such investment, through research and development of native vegetation products and services. The current level of funding for the fund is too small for this purpose and would need to be significantly expanded.

Education and skills development

Several observers noted that the rural community in NSW, and the rest of Australia, is going through major changes. Most of these changes have been forced by outside pressures, like falling commodity prices, globalisation, and an increasing awareness of the importance of the natural environment. The best response to change is to update the skills of affected people, so that they can better adjust their way of life.

It would be naïve to assume that rural communities have not adjusted to change. People have always been active in their local communities, through groups such as school support groups, bushfire brigades and mostly recently landcare.

Landcare, a significant environmental movement itself, has taken many years to build up to its current level of acceptance. Similarly, the native vegetation goals embodied in this Act will also take some time to gain acceptance. However, it will require a significant effort in providing information to stakeholders to achieve that same level of success.

Two changes are needed to improve the information available to rural people. The first is that the affected stakeholders and their leaders need to actively organise a more constructive debate. Regional Government and business leaders need to accept and understand the Act's intentions and work to make sure that this is well known.

Secondly, the NSW Government authorities with responsibility for this Act need to ensure that information is available for people when they require it. This is already being achieved to some extent, but cannot be forgotten.

Improve participation

The previous section points to a need to overhaul the participation arrangements of the Act. The membership of rural landholders and local Government needs to increase to at least half of Regional Committees and the Advisory Council. Without that change, these most affected stakeholders will always feel that the process is not theirs, but is controlled at the State bureaucratic level. The level of representation by Government authorities should be reviewed and reduced to one, given that the State always has authority under the Act to make final decisions.

Reduce exemptions and exclusions

The current exemptions and exclusions allowed under the Act should be tightened to prevent the weakening of the Act's ecological benefits. The current arrangements allow uncontrolled clearing in a potentially large but dispersed area. The provision for up to 2 hectares per year per property to be cleared without permit has particular dangers when the large number of small landholdings surrounding cities is considered. The exclusion of urban lands not only endangers some native vegetation communities, but it also heightens the perception of inequity.

However, while this change would be ecologically desirable, it should be made in conjunction with the other proposed changes, otherwise it would be seen as further inequity.

Summary

A number of changes to the Act's administration are needed to address the equity and participation problems. Several measures are proposed that are designed to explicitly assist regional communities to create a new economic and social future. Improving community ownership of the Act and its objectives should take high priority, through improved participation mechanisms and community information programs. Finally the exemptions and exclusions need to be reviewed to protect the desirable ecological outcomes from being lost.

CHAPTER 5

CONCLUSIONS

The Native Vegetation Conservation Act 1997 was implemented to curtail and control the loss of native vegetation in NSW. That clearing was as a very important part of agricultural development, Australia's dominant rural land use. However, that clearing can now be seen to have exceeded the capacity of the natural landscape to bear without significant damage to the natural systems.

The NSW Farmers Association estimates that there are about 40,000 farms in NSW, of which many would have some remnant native vegetation. A number of biogeographic regions have had little clearing, particularly in the Western Division (0-1% in northwestern corner of the State), as the principal farming use has been grazing on native grasses and shrubs. The level of clearing rises towards the east, where the land is more arable. An economy based on agriculture has developed in the past 200 years, but it is a way of life which is facing rapid change for a number of reasons.

The Native Vegetation Conservation Act 1997 is contributing to that change, by forcing rural landholders to modify their practices. However, while the change is intended to provide benefits for the long term good of the community, this modification has not been without some disadvantage for many people. This disadvantage might be eased by some judicious changes to the policy, legislation and implementation practices.

First and foremost, the current policy is inequitable in its effect on the NSW community. A laudable community goal, of better environmental management of the shared resources of the State, is largely being borne by rural communities. They have been expected to implement the requirements of the Act with little assistance, either in terms of resources or skills development. Secondly, rural communities feel strongly that they have been given little power in the decision-making processes associated with their lifestyle and future.

The use of strategic environmental assessment techniques to test the NSW Native Vegetation Conservation Act 1997 for sustainability has revealed a wide range of positive and negative impacts at the social, ecological and economic level. In general, it has made a substantial contribution to the sustainable development of NSW. It provides net benefits in conservation of biodiversity and cultural diversity, improves the long term well-being of NSW residents and improves the value of the natural legacy which will be left to future generations.

If sustainability is to become a reality for Australian society, then many policies, both old and new, need to be reviewed. The social, economic and ecological aspects of society must be carefully balanced if individual and society well-being is to be maintained and enhanced. The use of strategic impact assessment techniques, which include ecological, social, economic and risk analysis, offers an effective way to assess the sustainability of a policy in a relatively quick and easy way.

APPENDIX 1 – TRANSCRIPTS OF INTERVIEWS

Appendix	Interviewee	Organisation
1.1	Robert Adam	Dept of Land and Water Conservation, Goulburn
1.2	Simon Carson	NSW Farmers Association
1.3	Alan Cummine	Australian Forest Growers
1.4	Neil Inall	Chair, Native Vegetation Advisory Council
1.5	Debra Rae	Local Government and Shires Association
1.6	David Sullivan	Herron Todd White Valuers, Dubbo
1.7	Tim Wilkinson	Dept of Land and Water Conservation, Wollongong
1.8	Peter Wright	Conservation Council of NSW

Disclaimer

These transcripts are based on discussions with the people concerned during the month of December 1999. They reflect the interviewer's interpretation of the discussion and cannot be seen as direct quotes from the interviewees.

Appendix 1.1

Transcript of Discussion with Robert Adam

Person: Robert Adam

Co-ordinator

Vegetation Management Program for Sydney South Coast Region

Department of Land and Water Conservation

Office: Goulburn, NSW

Address: Level 1

159 Auburn Street

Goulburn NSW

Email: radam@dlwc.nsw.gov.au

Date of discussion: 10 December 1999

Report:

- The purpose of the discussion was to gain Robert's insights into the operation and interpretation of the NSW Native Vegetation Conservation Act 1997.

Origins of the Act

- In August 1995, State Environment Policy 46 (SEPP 46) was put in place, placing restrictions on the clearing of native vegetation in rural areas of NSW. This was the first stage in a 4-stage process.

- Stage 1 – SEPP 46 implemented after discussion with a range of stakeholders. It was always intended to be an interim control allowing for a longer term process.
- Stage 2 – An extensive public consultation process was conducted, involving the NSW Vegetation Forum. Papers were written, released for public comment and comments received. The Vegetation Forum made its recommendations to Government.
- Stage 3 – Development and implementation of new provisions for the management of native vegetation. The NSW Government prepared the Native Vegetation Conservation Act 1997 and parliament passed it into law. It came into effect on 1 January 1998.
- Stage 4 – Implementation phase, a formal process of native vegetation management and monitoring.

Objectives of Act

- The Act resulted from the current Government's policy platform to improve native vegetation management in NSW. The trigger for the Act was to some extent the immediate issue of land clearing in NSW. The Act requires ecological, economic and social analysis of any plans to clear or modify the vegetation.

Best Features of Act

- It offers a range of options to manage native vegetation issues – long term planning, incentives and an application process which requires objective review of the proposal
- The Regional Vegetation Management Plans and Native Vegetation Advisory Council offer considerable scope for community involvement.
- The incentive program (Vegetation Management Fund) offers landholders access to funds to help retain native vegetation.

Future Needs

- Resources – inevitably such legislation is a drain on resources. In the case of DLWC, no additional resources were initially provided to enforce the Act, although a restructure of the Department, including merger of several others into it was going on at the same time. While further resources have subsequently become available, resources still fall well behind demand.
- Review – the Act and its implementation will eventually need review. A range of stakeholders have differing views – some think that there should be a more rigorous application of its provision, others think it is too draconian.

Regional Vegetation Management Plans

- There are no plans in place yet, although the Mid-Lachlan Plan is in draft form and has been circulated in the community. It is believed to be awaiting final approval.

Vegetation Management Fund

- As at 10 December 1999, there were 262 property agreements in place involving provision of funds
- $3.3 million of the original $15 million provided had been actually spent
- an additional $8.8 million committed.
- Agreements call for one-off upfront payments to landholders for work. There may be scope to review that style of arrangement in the future, with a more contractual arrangement (allowing periodic payments for works carried out).

Financial Impacts

- Landholders – the only direct costs of preparing and submitting a development application result from the information the applicant has to supply. In major applications, the cost of consultants and landholder time may be high.
- Department – there are costs to the Department in terms of staff time, but this was covered by reorganization rather than specific funding.
- The generation of income is very important to farmers and the financial impact is important to them. However, in many areas (Sydney basin, Canberra/ Monaro, coastal) many applications are from people who are not financially reliant on their property, or who are looking at non-traditional uses (like forest plantations).
- In terms of landholder reaction, there has been a wide range of responses, often not reflected in the views of representative bodies. While many view the

Act as being unwarranted interference in their lives (a view put by the NSW Farmers Association), many take a more relaxed view.

- There is a tendency for newer landholders to accept the Act and work to implement it, while some of the more traditional owners are not prepared to work with it voluntarily.

Economic Impacts

- In general, the major costs could be seen to be economic development opportunities foregone. There also may be some actual lost production in the wheatbelt, where landholders use a long rotation technique involving some use of native grasses – these native grasses which naturally regenerate would then be considered native vegetation under the Act.
- The economic benefits from water quality, carbon credits, habitat etc. all tend to be social benefits rather than direct benefits to landholders.
- The application process has thrown up some interesting aspects. Many proposals when objectively assessed are not economic (i.e. the benefits from cropping or grazing will not cover the costs of land clearing and management).
- In this respect, the Act may well be forcing an economic rigour on private landholders development assessment.

Ecological Impacts

- The negative aspects of the Act in this respect are that some view the Act as allowing too much clearing to continue.

Community Participation

The following table shows a continuum of participation levels possible.

Table App 1.1.1 - Community participation - Robert Adam

	In development	In operation	Best future
No community involvement – all directions are given by the prescribed authority		The application process is driven by the Act. Community is subject to Act and Department's enforcement processes.	
Co-option – community representatives chosen but no real power			
Co-operation – tasks assigned to community, outsiders decide and direct agenda			
Consultation – community gives opinion when asked, outsiders decide action	The Act was developed with community consultation.		

Table App 1.1.1 continued

Collaboration – community works with outsiders to set priorities, outsiders direct process			
Co-learning – community and outsiders share knowledge and jointly form action plans, outsiders facilitate, not direct		The Regional Vegetation Management Committees and the Advisory Council fit this level.	This level should remain in place for the future.
Collective action – community sets and runs own agenda, no involvement of outsiders			

Other Comments

- Some proposals are clearly put by people who have no intention to work with the Act.
- Some are clearly ambit claims for too large an area on the basis that then they will get some.
- Some applicants have been very aggrieved by decisions, especially in a pre-application phase if they are told they have no chance.

- Clearly education of landholders is needed, but there will always be a core who will not accept the Act's provisions and will continue to fight it. We may need to see a generational change of landholders to see acceptance in these people.

Transcribed by Robin Nielsen

10 December 1999

Appendix 1.2

Transcript of Discussion with Simon Carson

Person: Simon Carson

Assistant Director, Conservation and Resource Management

NSW Farmers Association

Address: 1 Bligh Street

SYDNEY NSW 2000

Email: carsons@nswfarmers.org.au

Date of discussion: 13 December 1999

Report:

General

- The DLWC are using the Act to stop land clearing rather than implementing ESD, meant to be the primary objective of the Act itself.
- The NSW Farmers Association (NSWFA) position has been misunderstood by others. They recognize the need for control of native vegetation clearing and the Act has been very effective for that. However, it has not been effective in implementing the principles of ESD nor has it been effective at promoting and conserving high conservation value environments.
- Their philosophical objection is to the inequity of the Act and its implementation.

- It requires private landholders to provide social benefits to wider society without compensation. Even if these inequities are addressed, the current administration is too time and resource consuming.
- The social cost of the Act is associated with individuals and small town communities, by reducing economic returns/viability.
- Native Vegetation Conservation is one of two very high priority issues for NSW FA (the other is water management), principally because these are the two aspects of State Government policy which affect all farmers.
- It is tying up land without financial recognition of the cost to landholders. Individuals are bearing the cost of society's desires.
- There is an unrealized economic effect of the Act, through lost production and the cost of managing native vegetation with no return.
- There is too much red tape involved (see NSWFA Papers dated 31 March 1998 and 14 July 1998). Both show the very detailed and bureaucratic process used to develop a Regional Vegetation Management Plan.
- The economic and social viability of landholders is not recognized well in the Act or in its operation.
- The NSWFA will happily work with the Conservation Council, although they have some fundamental differences of opinion.

Fund

- The fund is too small. There are 40,000 farms in NSW, and only $15 million.
- Most of the fund seems to be being used for fencing.

- There should be more funds and they should be able to be used in the form of ongoing management assistance.
- The wider community should be paying for the social benefits of landholders conserving native vegetation.

Best Features

- The best feature of the Act is its regional approach and the provision of the Vegetation Management Fund.
- NSWFA have always believed that the regional approach is the best. This allows local people to deal with their own problems, rather than having imposed priorities.
- The Vegetation Management Fund, while currently too small and limited in its application, is a recognition that landholders will not be able to do the job alone, especially as the benefits are largely social in nature, rather than accruing to farmers.

Worst Features

- The clearing definition is too wide. It currently technically prevents virtually any treatment of native vegetation.
- Many people, especially urban residents, misunderstand the issue. They think that the Government is only controlling land clearing, but in fact it is controlling vegetation treatment of any kind.

- The development application process is bureaucratic, and time and resource consuming, especially where a major application is involved.
- Government has applied the Act in a heavy-handed way. It is inflexibly applied and the Department is erring towards rigid application, with a heavy use of the precautionary principle.

Future

- The regional focus needs to be enhanced. Central Government should provide objectives and resources and let the Regional Committees deal with planning and implementation.
- More funding is required and it should be used to 'buy' conservation management services from farmers rather than for fencing.
- The Department of Land and Water Conservation needs more resources and expertise. Their current role seems to be as a regulator only, rather than a facilitator.
- One interesting effect has been a seeming 'sidelining' of the Department of Agriculture. A more integrated and co-ordinated approach from Government entities is needed.

Economic and financial effects

- The effect of the Act is hard to quantify, as it varies greatly. In general, the costs are borne by farmers, with some assistance from the Vegetation Management Fund in some cases.

- Benefits of the Act are basically social (or public) and the Government expects landholders to bear nearly all the costs.
- There are costs by virtue of lost production potential, and the costs of managing for conservation.
- A real estate valuer from Herron Todd White had made some estimations of the loss in land value caused by the Act.

Social and Cultural Impact

- A recent Commonwealth Government Regional Forum was told that environmental controls were limiting future farm development. This was also leading to job losses.
- Such controls poorly applied will continue the trend to farm failure and bankruptcy.

Ecological Impacts

- Restricting clearing in some locations is hampering noxious weed control.
- The Act's administration may encourage people to plough up any native vegetation regrowth that is just under 10 years old, so that it doesn't become 'native vegetation' under the exemptions and exclusions guidelines (DLWC 1998c).

Education and Information

- DLWC have developed explanatory material that is getting to the NSWFA central office, but distribution to individual landholders is patchy.

Community Participation

The following table shows Simon's estimation of the level of participation used, from the NSWFA perspective.

Table App 1.2.1 - Community participation - Simon Carson

	In development	In operation	Best future
No community involvement – all directions are given by the prescribed authority		Development application is a regulatory activity with no consultation.	
Co-option – community representatives chosen but no real power		Regional Vegetation Committees have little actual power	
Co-operation – tasks assigned to community, outsiders decide and direct agenda			
Consultation – community gives opinion when asked, outsiders decide action			

Table App 1.2.1

Collaboration – community works with outsiders to set priorities, outsiders direct process	The policy development process involved a fair degree of participation		
Co-learning – community and outsiders share knowledge and jointly form action plans, outsiders facilitate, not direct			
Collective action – community sets and runs own agenda, no involvement of outsiders			NSWFA want real community power to achieve objectives.

Other problems

- This is a complete change of policy direction by Government. Past policies actually required clearing on many lands.
- At the Federal level, there is insufficient recognition of the effect of environmental legislation. Tax system does not adequately recognize costs, such as setting land aside for conservation.
- Water quality degradation is all being blamed on farming practices, but the contribution of town-based pollutants has not been well enough examined.

- People need permission to go into native vegetation to control weeds, which they are obliged to control under other legislation.
- Even if a way is found to compensate farmers for native vegetation conservation, the National Parks and Wildlife Service is not able to manage its existing lands effectively, without adding additional land. Their resources are too limited.

Documents provided

- Salvin, S. 1998a. *Native Vegetation Conservation Act 1998.* Information Sheet for NSW Farmers Association members dated 31 March 1998.
- Salvin, S. 1998b. *Native Vegetation Legislation – Unintended Consequences.* Information for NSW Farmers Association members dated 8 April 1998.
- Salvin, S. 1998c. *Presentation to the Council for Sustainable Vegetation Management – NSW Bushcare Stakeholder Forum.* NSW Farmers Association Submission dated 14 July 1998.
- NSW Farmers Association. 1999. *Why we are opposing the Native Vegetation Conservation Act.* Undated note provided by Simon Carson.

Transcribed by Robin Nielsen

16 December 1999

Appendix 1.3

Transcript of Discussion with Alan Cummine

Person: Alan Cummine

Organisation: Australian Forest Growers (AFG)

Position: National Policy Director

Contact: Telephone Conversation

Date: 3 December 1999

Report:

Alan gave me some history of the Native Vegetation Conservation Act 1997.

- 1989 – a tree forum was formed with Greening Australia as a major pusher.
- It very much reflected the GA view of life.
- Native vegetation forum put in place after change of Government in NSW. But it wasn't interested in commercial forestry.
- State Environment Policy 46 (SEPP46) was issued – preventing all clearing. This was in his view good thing as it stopped clearing to allow policy development. It was the precursor to the Act.
- Victoria used the same approach
- WA didn't and it led to accelerated clearing until legislation put in place
- Queensland hasn't either – they have announced their intention to legislate but have put nothing forward to prevent prior action

- The Act was passed in 1997. Farmers claimed that it did not reflect views of the Native Vegetation Forum because of Conservation Council lobbying at the last minute, to which they were not a party.
- The Act includes provision for a Native Vegetation Advisory Council – Neil Inall is the current chair.
- There is no provision for forestry people on the Council except via rural or conservation interest nomination.
- AFG nominated a representative through NSW Farmers but they haven't accepted place yet, so the Chair has persuaded individual farmers to join.
- The Act is really aimed at preventing land clearing – it is not about forestry.
- After Act put in place, the DLWC formulated guidelines to assess clearing applications.
- Alan's view is that the definition of clearing is 'crazy' – it is too wide and excessively limits farmer activity. An example is that even slashing native grass for normal pasture control is illegal.
- There are guidelines for applications to clear. Minor and medium are reasonably useable, but a major application (for action on over 200 hectares) requires significant expenditure, with no guarantee of result, and which is subject to appeal under the Act.
- The definitions reflect a lack of forestry expertise
- Thinning is defined as tree removal for grazing
- High intensity logging – less than 49% of canopy remains after operation
- There is provision in the Act for sustainable forestry

- Ian Hannen of DLWC has developed guidelines for vegetation officers – takes a hard line on sustainable forestry – could only demonstrate it by having done it for many years. Impossible hurdle for new players, or newly converted.
- The appeal process requires farmers to prove they are doing sustainable forestry, rather than onus on appellants to prove that they aren't.
- AFG have regular discussion with Kim Yeadon (Min for Forests) – he has indicated that private native forestry is too hot an issue, and nothing would be done in this term of parliament
- Government is not really encouraging private native forestry – they refused inclusion in RFA process (to give certainty) and have been giving money to State Forest of NSW to buy up forested lands.

Summary comment:

- The Act is designed to control clearing of native vegetation of farms, but is by accident preventing good forestry management practice from happening.
- The barriers to private native forestry are rising at the same time as it is being encouraged
- The Act is probably workable, but it has generated a great deal anxiety

Transcribed by Robin Nielsen

3 December 1999

Appendix 1.4

Transcript of Discussion with Neil Inall

Person: Neil Inall

Chairman, NSW Native Vegetation Advisory Council

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7-9 West Street

North Sydney NSW 2060

Email: neili@coxinall.com.au

Date of discussion: 13 December 1999

Report:

- Neil Inall accepted an offer in May 1999 to become Chair of the NSW Native Vegetation Advisory Council. The Council has 16 members as defined in the Act.
- Neil has a long standing interest in rural affairs in Australia and was host of the Cross Country Rural Programme, formerly shown on the Prime Television Network until the end of 1999.
- Neil's perception is that the majority of people generally accept that the Act or its intent was needed to limit land clearing and consequent damage to environment and land productivity.

Council Operation

- Neil feels that the Council is too big to make fast headway. The number of bureaucrats on the Council means that a change of Departmental representatives may lead to an inconsistency of approach.
- The absence of representatives from the NSW Farmers Association is unfortunate, and has led to a need to achieve farmer representation separate from the NSWFA.
- The Council had one meeting in the 'bush', at Nyngan, in 1999. This meant that members were able to look at on ground problems and talk to some local people. Andrew Campbell, then at Environment Australia, also talked with the local representatives of landholder organisations at dinner.
- The local Mayor and others attacked the Council for being secretive, not holding public meetings and generally not consulting more widely.
- The Council intends to send a draft strategy for vegetation management, prepared by a strategy sub-committee, to the Government soon. This follows 8 background papers prepared in the last year. Neil expects that following Government approval of the draft, it will be circulated widely, with an attached questionnaire, allowing broad community input.
- The Strategy sub-committee is chaired by National Parks and Wildlife Jonathan Sandars and includes Peter Wright from the Nature Conservation Council.
- Neil sees the Council's role as being to consult directly with Regional Vegetation Committees, rather than to hold what can often be unproductive public meetings.

- Participation of the members of the Advisory Council is limited by people's time and the low level of remuneration.
- The local Government role is vital to successful native vegetation management. A former President of the Local Government Association is on the Council and is a major contributor.

Stakeholders

- Neil sees the NSW Farmers Association as objecting to the Act on straight over-regulation grounds not as a party political issue. Some of his colleagues say it is a party political issue.

Best Feature of Act

- The 3 pronged approach of using the Council to develop the strategy, regional committees to develop regional plans and the Incentive Fund are the best features.
- The strategies all need to be integrated and harmonized with other environmental and land management strategies, eg. Biodiversity strategy, national weeds strategy and dryland salinity strategy.
- Catchment management arrangements are changing now to improve their performance – regional planning hopefully will be largely done by catchment management groups

Problems

- Landholders are suffering from 'volunteer fatigue' in many cases. They have to run fire brigades, landcare groups etc, and now are being asked to work on regional vegetation management committees, all at a time when farm businesses are facing bigger challenges in terms of declining margins and the need to increase productivity.
- Compensation is an issue. Many farmers see this Act as having imposed a community desire on them, which leaves them with limited future options. In particular, there are inequities between farmers who have already cleared land, who now have a higher acreage of productive land and a neighbour who might have been more prudent, but is now left with a limit on future productivity.
- Shouldn't that farmer get compensation for this community benefit he is providing?
- Are we at the point where we should pay people to look after their land for the whole of society's benefit?
- There are almost too many separate grant programs for landholders to access. This leads to confusion.
- There are real pockets of landholder discontent in the north and west of the State.

Future

- Neil would like to see the fund at least partly used to provide seed funding for a 'Trust', to encourage private sector native vegetation funding. This would also

be a vehicle for land donation and eventual sale, as a native vegetation 'reserve' to interested community members. Victoria's Trust for Nature is a good model.

- Ongoing education and information provision to stakeholders is a key requirement of both Council and Government entities if Native Vegetation Management is to improve.
- There is also a need to work with key players in rural communities like DLWC officers, Rural Lands protection, NPWS, bankers, stock and station agents, local Government, to ensure that needs of native vegetation are needed and incorporated in thinking at the basic level, rather than as a regulation which has to be followed.
- The Act does not need change at this stage – the current provisions need to be worked with for a while to test them properly. Even with the current provisions, there should be sufficient flexibility. It is the understanding in the affected community that is missing. That is a real challenge for NVAC to communicate the issues clearly and simply.
- NSW Government departments need to be given adequate resources to administer the Act. Regulation is not enough, they need extension funding.
- Integration with other Government policies is needed. Links with biodiversity, dryland salinity, Murray-Darling Basin, Plantations 2020 need to be established.
- There continues to be a drift of people out of regions for many reasons. This is becoming a political issue and native vegetation management (or ecology vs economy) is likely to be caught up in it.

- The very public issue of dryland salinity is a driver in the native vegetation conservation debate. It is a clear indicator of ecology health. However, the issue is still not understood by the key players
- The Murray-Darling Basin issue is also a key indicator that is poorly understood in the community.

Transcribed by Robin Nielsen

16 December 1999

Appendix 1.5

Transcript of Discussion with Debra Rae

Person: Debra Rae

Local Government and Shires Association of NSW

Address: Level 4

215 Clarence St

Sydney NSW 2000

Email: drae@lgsa.org.au

Date of discussion: 14 December 1999

Report:

General

- The Association was involved in the development of the Act in a minor way only (i.e. through providing comments on the draft bill). Policy statements about it emerged from annual conferences.
- It largely agrees with the thrust of the legislation.
- There are actually 2 organisations with a common secretariat. The Local Government Association covers urban areas, including Dubbo and Wagga. The Shires Association covers smaller rural councils.
- The Act only really applies to about 140 shires and councils (40 are residential only).

- Local Government gets its funds basically from State Government and rates on residents.
- The Department of Land and Water Conservation don't consult much with local Government and the relationship isn't great in general. They have low resources and don't have a sufficient number of education programs.
- In terms of educating landholders, local Government is unlikely to want to educate their community about the Act if they don't manage the process.
- Native vegetation management is an issue for local Government but not as high as GST, rates and rate-capping. Local Government is being given responsibility for these issues without resources.
- The Association is concerned at the lack of consultation and involvement in the Act. There is some risk that it will run counter to other Acts.
- Local Government is being asked to pick up the slack left by State agencies as they have their funds cut.
    - E.g. Local Government has to deal with weeds invading from National Parks.
- The State needs to be more strategic in its approach. Development applications under the Act often have conflicting comments from different Departments.
- All the various pieces of legislation need to be harmonised.
- The EP&A Act is more suitable for local Government. They are able to set their own priorities within their own Local Environment Plans (LEP). However, the

LEP must be consistent with the State Environment Policy (SEPP) and be approved by the Minister.

- Local Government needs a higher level of representation on Regional Vegetation Management Committees. Many regions cover a number of local Government areas and each need to be involved, rather than having to select a single representative. Local Governments often have very different views, but if true on ground native vegetation management is to improve their role, will be vital.

Best Features

- The objectives of the Act are admirable and will help to improve native vegetation management.

Worst Features

- The mechanisms in the Act are flawed.
- The local Government role should be more central, but is peripheral.

Future

- Local Government's role needs to be expanded and resources provided to properly achieve regional improvement.

Economic and Financial Effects

- Main comment is that there could be minimal losses of future opportunity.

- Some local Government could lose rates if one result is a transfer of land to Government control.

Social and Cultural Impact

- No one can judge the effects on rural communities.
- Some people are suggesting losses due to this policy, but this is hard to prove. This tends to be a standard reaction to any State Government controls.
- There could in fact be an increase in overall productivity, but the effect will be felt in different ways in different areas.
- It is difficult to separate the Native Vegetation Conservation Act from all the other pressures, such as salinity.

Ecological Impacts

- The Act will largely have a positive impact if implemented properly.
- So far the Regional Vegetation Management Committees have not had time to have an impact. They will need time to do the job properly.
- There is a risk of negative impact by farmers deciding to clear more than they might in panic. So far, no one has been charged and if the Act is seen as having no teeth, people will move to clear in case it is more rigorously enforced.

Community Participation

The following table shows a continuum of participation levels possible. In this case, the term community should be taken to mean any stakeholder, including local Government.

Table App 1.5.1 - Community participation - Debra Rae

	In development	In operation	Best future
No community involvement – all directions are given by the prescribed authority			
Co-option – community representatives chosen but no real power		Local Government feels that while they have been invited to participate, they have no power.	
Co-operation – tasks assigned to community, outsiders decide and direct agenda			

Table 1.5.1 continued

Consultation – community gives opinion when asked, outsiders decide action	Local Government was asked to give opinions, but the ultimate decisions were with State Government.		
Collaboration – community works with outsiders to set priorities, outsiders direct process			
Co-learning – community and outsiders share knowledge and jointly form action plans, outsiders facilitate, not direct			
Collective action – community sets and runs own agenda, no involvement of outsiders			Local Government feels that it should be the driver and administrator of regional native vegetation management

Shires Association Conference Resolutions in relation to the Act:

Resolution 1 (1998 Shires Association Conference):

That the Shires Association make representation to the Minister for Local government and the Minister for Land and water Conservation to investigate the potential of Local Government having the option to administer the Native Vegetation Conservation Act 1997.

Accompanying Note: Central Northern County Council is concerned the governance of Native Vegetation Management will be conducted through committees of select special interest groups. It is council's belief administration of the Act can be more effectively achieved through Local Government in its resource sharing capacity with county councils which are representative of the broader community interests and concerns.

Response from Minister: recognised that Local Government will be integral to the successful implementation of the Act.

Resolution 2 (1998 Shires Association Conference):

That representations be made to the Minister for Land and Water Conservation requesting that the existing provisions of SEPP46 remain in place to enable farmers to continue to obtain permission for clearing until the Minister has approved all Regional Boundaries, Regional Vegetation Management Committees and Regional Vegetation Management Plans.

Accompanying note: While the NSW Government has recently passed new legislation regarding land clearing to replace SEPP46, it is understood that the guidelines and regulations associated with such legislation will not be in place for some time which means that all applications for clearing will not be processed. At least if the provisions of SEPP46 can be applied to clearing applications for that interim period, some progress may be made by those wishing to clear land.

Ministers response: not possible to keep existing SEPP46 in place as this policy was repealed with the introduction of the Native Vegetation Conservation Act 1997.

Resolution 3 (1999 Shires association Conference):

That local councils become a consent authority for Native Vegetation Management Plans that have been compiled by a local committee of farmers and other environmental stakeholders in each local Government area.

Ministers response: none as at 17 December 1999.

Transcribed by Robin Nielsen

17 December 1999

Appendix 1.6

Transcript of Discussion with David Sullivan

Name: David Sullivan

Property Valuation and Advisory Services

Herron Todd White

Address: Suite 4, Level 2

118 Macquarie Street

Dubbo NSW 2830

Email: davids@htwdubbo.com

Phone 68842999

Fax 68845673

Date of phone conversation: 20 December 1999

Report

- David has done some work on the effect of the Native Vegetation Conservation Act 1997 on land values on rural properties.
- He has had two articles published in Herron Todd White's Newsletter, The Rural Review, in September and November 1999.
- The Act has had most effect on traditional properties which have significant areas of native vegetation in the form of native grasses. In the past, farmers could have turned them into crops without hindrance.

- He believes that the effect has been to reduce the value of the native grassland area by up to 50% (Nyngan) although that is very much dependent on the region.
- This has the effect that farms which were bought at one value with an expectation of being able to convert native grassland to cropland have lost value on resale.
- There is, however, no hard and fast effect – it depends on the type of native vegetation and the region.
- Native forest and grassland are completely different – grassland is much easier to convert to crop, and consequently the lost opportunity is higher than forested lands.
- The western fringe areas of NSW are the most affected – as farms become less economic for a variety of reasons, farmers are looking to increase their productive area, but now have to seek approval. As technology improves, there was an expectation of being able to make marginal land more productive, but the Act has stopped much of this activity.
- The applications process is too long and time consuming – he has heard of applications taking up to 2 years to be processed. A farmer could have run out of credit or gone broke in that time.
- The other effect has been that land currently under cultivation has increased in value (because it isn't affected) and land with native vegetation has decreased in value. Farm asset values have therefore increased in some areas and decreased in others – this is seen as inequitable.

- His view is that this change is designed to provide benefits for the wider community, but the costs are being borne by individual farmers, in an uneven manner. This is not fair.

Documents provided

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Sullivan, D. 1999b. "The Rural Review." Newsletter of Herron Todd White. 1 September 1999 Edition.

Sullivan, D. 1999c. "The Rural Review." Newsletter of Herron Todd White. 1 November 1999 Edition.

Transcribed by Robin Nielsen

21 December 1999

Appendix 1.7

Transcript of Discussion with Tim Wilkinson

Person: Tim Wilkinson

Phone: 02 4226 8587

Organisation: Department of Land and Water Conservation

Position: Wollongong

Contact: Telephone Conversation

Date: 6 December 1999

Report:

Tim suggested that Robert Adam in Goulburn was the best person to talk to. He also gave me his perspective on the NVCA.

- SEPP46 began the process – it was put in place quickly to prevent panic clearing, such as going on in Queensland at the moment
- SEPP46 – definitions of vegetation. Also was a definitions and exceptions document
- Connected to EP&A Act (Part 4)
- The Department went straight to a regulatory approach, with insufficient extension, partly due to implementation without extra funding.
- Amendments to SEPP46 – last one was to allow for Regional Vegetation Management Plan – only Lachlan is close to finished
- Act allows for Conservation (Property) Agreements

- Fund - $15 million – not accessed for a long time
- The Department focus had to change to implement Act – more ecologists
- Under SEPP46 – about 26 people prosecuted – fines and high rehabilitation costs
- Nobody prosecuted under Act yet
- Socio-economic studies required – in one case, were able to show hobby farmer that action was going to be very costly for him.
- Application – little cost to applicant, except where a major application
- Major application – information needed for ecology, heritage, indigenous issues
- General cost to typical farmer is very low
- Dept has to bear most of cost - farmers who apply get a free assessment
- One of best features – talking through processes with landholders in pre-application phase
- Legislation – doesn't work well with small landholders – exception under Act allows 2 ha clearing each year – 20 ha could be cleared in 10 years

Transcribed by Robin Nielsen

6 December 1999

Appendix 1.8

Transcript of Discussion with Peter Wright

Person: Peter Wright

Nature Conservation Council of NSW

Address: Level 4

362 Kent St

Sydney NSW 2000

Email: pwright@nccnsw.org.au

Date of discussion: 14 December 1999

Report:

General

- The trigger for the Act was to control the level of broadscale land clearing. It followed SEPP46.
- A recent report on rates of clearing for the period 1995-97 found that compared to the 1990-95 period, there had been a 30% decline in clearing rates. But is that attributable to the Act or simply to reduced demand for other reasons such as economic factors? (Wright 1999: 2)
- Reporting of clearing under Act had been poorly reported until recently. DLWC is now developing better reporting systems. Targets and environmental management systems are needed.
- Ironically, Queensland has a good information base, but no legislation yet.

- In 1998, 85,000 ha of clearing consent had been granted, but this doesn't refer to clearing in that year.
- Ecologically Sustainable Development is being used to justify watering down the importance of ecological needs, by unduly stressing social and economic needs. The precautionary principle is the only one used with any regularity but it is not applied systematically.
- The Staff Guidelines for the Assessment of Clearing Applications under the Native Vegetation Conservation Act 1997 explicitly allow for some loss of biodiversity to provide for some socio-economic advancement.
- The advice provided to landholders about vegetation management is dubious in some cases. The Department has insufficient expertise to advise and regulate under the Act. It is actually handling the highly contentious water rights issue better.
- Native vegetation management is a key issue for the NCC.

Worst Features

- The Fund is a good innovation although it wasn't used quickly enough.
- The priorities for funding haven't been achieved, but much of the money is gone already.
- There is insufficient staff to process applications properly in a reasonable timeframe. Shortcuts are being taken and resulting in poor decisions.
- There is some competition with other programs, such as Greening Australia.

- The Act should have covered all lands and a robust process to conduct integrated assessment established.

Future Needs

- There needs to be a mapping program in place to improve the information base.
- The Government needs to develop targets and performance measures for action.
- More staff are need in the Department to administer applications for incentive funding and to provide extension services.

Economic and Financial Effects

- The main costs are the opportunity costs for individuals in cleared areas. Some are left now with high levels of native vegetation, which leads to some inequity. They then have to manage the native vegetation.
- This leads to insecurity for the remaining native vegetation, due the likely future pressure on political players. Use of the incentives program could help here although it should not be a form of compensation, rather a Stewardship payment program, with a conservation lease to reflect community desire for better management of vegetation.
- The benefits of retaining native vegetation are being underplayed. There has been some comment that grazing is more productive with 30% vegetation

cover, although the precise reasons are not known. This could be due to shade, shelter or soil management improvements.

Social and Cultural Impact

- It is hard to say that there will be any social/cultural effect that could be separated from other more major impacts, such as commodity price decline or microeconomic reform.

Ecological Effects

- The positive effects are as expected. Native vegetation management improvements lead to improvements in biodiversity, water management, habitat management, carbon credits etc.
- The negative effects are that the Act and the rules surrounding implementation still allow clearing.

Community Participation

The following table shows a continuum of participation levels possible. The following indicates Peter's assessment of the level of participation at various stages of the Act and its implementation.

Table App 1.8.1 - Community participation - Peter Wright

	In development	In operation	Best future
No community involvement – all directions are given by the prescribed authority		Application is not consultative	
Co-option – community representatives chosen but no real power			
Co-operation – tasks assigned to community, outsiders decide and direct agenda			
Consultation – community gives opinion when asked, outsiders decide action	The policy and legislation development process was consultative, although ultimately the Parliament made decisions.		

Table Appendix 1.8.1 continued

Collaboration – community works with outsiders to set priorities, outsiders direct process		The Regional Vegetation Management Plans process is somewhere between collaboration and co-learning.	
Co-learning – community and outsiders share knowledge and jointly form action plans, outsiders facilitate, not direct		See above	This is the appropriate future level of participation.
Collective action – community sets and runs own agenda, no involvement of outsiders			

Additional Documents

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Transcribed by Robin Nielsen

17 December 1999

Appendix 2 - Stakeholder Interview Questions

General

- What do you think was the primary objective of the Native Vegetation Conservation Act 1997?
- Has it been effective in implementing that objective?
- What are its best and worst features?
- What should be done in the future?

Economic and financial effects

- What the are the direct financial costs and benefits of the Act? Is it equitable?
- What are the economic costs and benefits of the Act? Are they equitably spread?

Social and cultural impact

- Will there be an effect on rural populations?
- Does it have any impact on the cultural diversity of NSW?

Ecological impacts

- What are the positive ecological impacts of this Act?
- What are the negative impacts?

Risks

- What do you see as being the major risks associated with the Act?

Participation Level

- What is your assessment of the level of participation? Indicate on the following table (Source: Based on Carter 1996: 4 – Box 1.1).

Table App 2.1 - Community participation scale

	Act development	Current operation	Desired future
No community involvement – all directions are given by the prescribed authority			
Co-option – community representatives chosen but no real power			
Co-operation – tasks assigned to community, outsiders decide and direct agenda			
Consultation – community gives opinion when asked, outsiders decide action			
Collaboration – community works with outsiders to set priorities, outsiders direct process			
Co-learning – community and outsiders share knowledge and jointly form action plans, outsiders facilitate, not direct			
Collective action – community sets and runs own agenda, no involvement of outsiders			

Other

- I am currently interviewing representatives from NSW Farmers, Cons Council, Local Government Association, Australian Forest Growers and Neil Inall. Who else should I talk to?
- Are there any relevant documents you can provide?

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